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THE PROGRAM BUDGETING SYSTEM IN THE U.S. DEPARTMENT OF DEFENSE AND ITS MANAGERIAL IMPLICATIONS FOR THE KOREAN MILITARY ESTABLISHMENT

by

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INTRODUCTION

Significance of Budget Decisions in Defense Management

The defense budget has become a central consideration of top management in the Department of Defense, particularly since the enactment of the National Security Act of 1947. In fact, it has developed into the most important force leading toward "real" unification in the Defense Department under the planning, programming and budgeting system inaugurated by the team of Robert S. McNamara and Charles J. Hitch in 1961.

Today it is generally accepted that strategy, programming and budgeting are all aspects of the same basic decisions.[1] Military plans, no matter how ambitiously formulated, are meaningless mirages unless they are feasible and are supported by budgets, and, additionally, defense budgets are a waste of public funds if they are not based on sound and meaningful national security policy.

The defense budget of the United States is the concern of people in many different areas of the world for various reasons. It has a tremendous impact on the economic, political and socio-psychological aspects of both domestic and international situations. What are the major motives for budgetary reforms and the evolution of financial management in the Defense Department in recent years? They can be traced to many interrelated factors. The most outstanding elements may be related to (1) increased defense

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[1]Charles J. Hitch, Decision-Making for Defense (Berkeley, Calif.: University of California Press, 1965), p. 14.

expenditures, (2) strengthened civilian control, (3) enhanced efficiency and economy, and (4) revolutionized military strategy and technology.

(1) Increased defense expenditures and their impact on the economy.--Since World War II, the increased international role of the United States, with accompanying responsibilities to meet cold war confrontation and sporadic local conflicts, and the enormous costs of contemporary weapon systems, together with the continuing costs of previous wars, have pushed defense spending to tremendous amounts. For the Fiscal Year 1967, President Lyndon B. Johnson presented to the Congress a $58.3 billion defense budget, amounting to 51.7 percent of the government's total outlays proposed for that year. This amount was roughly 8 percent of the estimated Gross National Product for 1966.[1] Its impact on the nation's economy as a whole, and on business and industry in terms of price, employment, and growth is significant.[2] Consequently, it would be difficult, if not impossible, to separate economic and political considerations from the defense budget.

(2) Civilian control--the problem of power structure in the Defense Department.--The concept of civilian control is an ideology of a democratic society. This belief, faith and tradition have been firmly imbedded in the Constitution of the United States, which makes the President, a civilian, the Commander-in-Chief of the Armed Forces and creates intricate checks and balances mechanisms between the legislative and executive branches of the

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[1] The Washington Post, January 13, 1966, pp. A1 and A7.

[2] Frederick C. Mosher and Orville F. Pollard, The Costs of American Government: Facts, Trends, Myths (New York: Dodd Mead, 1964), pp. 108-110; Jack Raymond, Power at the Pentagon (New York: Harper & Row, 1964), pp. 308-311; J. A. Stockfisch (ed.), Planning and Forecasting in the Defense Industries (Belmont, Calif.: Wadsworth Publishing Co., 1962).

government as in the case of declaration of war, appropriations of funds and appointments of officers.[1]

Particularly today, the development of thermonuclear weapons and ballistic missiles with highly sophisticated control systems seems to call for greater and stronger civilian control over military strategy, programs and operations. It is generally accorded in the United States that civilians should make final decisions about the kinds of military strategy to use in waging a war, the types of weapons systems to be developed and, most important, what weapons should be employed in a specific place and time and for what purpose. The professional military leaders are now asked mainly to advise, suggest and make recommendations to their civilian superiors in these respects.[2]

(3) Efficiency and economy—the problem of defense management.--In the eyes of most taxpayers the government in general is responsible for inefficiency, waste and extravagance, the military establishment being no exception. Frequently these attitudes arise from criticism for the government's large amounts of spending. These outside pressures for economy and efficiency in government operations, coupled with the drive for better management in the top echelon of the managerial hierarchy, have brought about better decision-making for efficient allocation of resources, optimum mixes of the resources available, and cost reduction through improved procedures and methods.

Defense spending, which is nondivisible, nonmarketable and equally available to the general public, is vulnerable to continuous attacks.

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[1] U. S., Constitution, Art. 1, sec. 8.

[2] Samuel P. Huntington, "Power, Expertise and Military Profession," American Defense Policy, ed. Wesley W. Posvar et al. (Baltimore, Md.: The Johns Hopkins Press, 1965), pp. 185-193.

Due to these inherent difficulties involved in defense undertakings, criticisms and outcries for more economy and efficiency in the defense management are of a never-ending nature. Therefore, the demands for better management of defense dollars are a constant challenge to both military and civilian officials in the defense establishment.

(4) Revolution in military strategy and technology.--As President Dwight D. Eisenhower predicted in 1958, today there is no separate ground, sea or air warfare and all strategic and tactical units must be integrated, unified and directed in order to be fully efficient and effective.[1] This applies not only to combat operations in the field but also to top management in the Defense Department in planning and controlling the execution of programs. The advent of modern weapons systems, with the great technical complexity, lengthy lead time and enormous costs have made centralized decision-making inevitable.

It is the premise of this paper that a combination of the above elements has been the major driving force behind the unification issue in the Defense Department which purports to produce unity of command, better coordination among the military as well as civilian-military departments and agencies, and the increased economy and efficiency through centralized authority in the Secretary of Defense for defense planning and control.

The following chapter will examine the development of the defense reorganizations in the United States since World War II in the light of the above premise and will show how the new management tool of planning, programming and budgeting has achieved the long-sought goal of military

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[1]Special Message to the Congress on Reorganization of the Defense Establishment, April 3, 1958, Public Papers of the Presidents, Dwight D. Eisenhower, 1958 (Washington: U. S. Government Printing Office, 1960), p. 278.

unification without creation of a single service or a single Chief of Staff system and without prior congressional approval. In the last chapter, the American defense system will be used in a discussion of the Korean defense system, with subsequent implications for the management of the Korean military establishment.

Primary information for this paper was obtained through library research. Background in the historical development of the United States defense organization and military budgetary procedures was compiled from current literature in this field.

CHAPTER I

HISTORICAL DEVELOPMENT OF DEFENSE REORGANIZATION AND MILITARY BUDGETING IN THE UNITED STATES

Since the Budget and Accounting Act was enacted in 1921, establishing the national budget system in the United States, until World War II, the essential role and procedure of budgeting in the military departments were not fundamentally changed. Military budgets were prepared on the basis of objects of expenditures in the bureaus of the Navy and War Departments, and their respective Secretaries transmitted them to the Congress as a matter of course. The defense of the appropriation requests was principally made by the bureaus themselves, and most of the appropriations were made to the bureau level and below.[1]

The Second World War revealed that the services were relatively unsuccessful in the peacetime development of basic strategic and mobilization plans and consequently their initial estimates for raw materials were practically worthless and proved to be mere guesswork. According to Luther Gulick, the war was not what the planners thought, and did not come as they had imagined.[2] Since World War II there have been numerous activities, experiments, and improvisations as well as some very fundamental and firm

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[1]Frederick C. Mosher, Program Budgeting: Theory and Practice (New York: American Book - Stratford Press, Inc., 1954), p. 55.

[2]Luther Gulick, Administrative Reflections from World War II (University, Alabama: University of Alabama Press, 1948), p. 46.

changes in the defense organization, with increasing emphasis on greater organizational unification and a stronger civilian control over military strategy, programming and budgeting. The initial attempt in this direction materialized as the passage of the National Security Act of 1947.

The National Security Act of 1947

Explanations of the exact time and causes of military unification vary among military historians. Some contend that one reason was the attempt to establish the autonomy of air power during the early 1920's, others claim it was wartime inefficiency and waste, and still others attribute it to the successful interservice coordination during the Second World War.[1] Whatever the reasons, and in spite of the introduction of at least sixty unification bills in the Congress since 1921, as well as numerous hearings in the Congress, military unification was not substantiated until the enactment of the National Security Act of 1947.

The National Security Act was the first step toward unification after long, arduous and earnest efforts of many people, including President Harry S. Truman; the first Secretary of Defense, James Forrestal; Ferdinand Eberstadt; Generals Dwight D. Eisenhower, Lawton J. Collins, and Lauris Norstadt; Admirals William D. Leahy, Chester W. Nimitz, and Forrest P. Sherman; and the Members of the Senate Committees of Military Affairs and Naval Affairs, to name a few.[2]

The Army's Collins Plan which was submitted to the Congress in 1945 envisioned a greater degree of unification and was supported by President

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[1] John C. Ries, The Management of Defense (Baltimore, Md.: The Johns Hopkins University Press, 1964), pp. 3-4.

[2] Paul Y. Hammond, Organizing for Defense (Princeton, N.J.: Princeton University Press, 1961), pp. 185-225.

Truman, but the then-Secretary of the Navy James Forrestal and the Navy as a whole strongly opposed this plan. Instead, Mr. Forrestal proposed the so-called Eberstadt Plan which represented a lesser degree of unification and relied heavily on decentralization and a coordinating committee system. Major disagreements between the Army and the Navy were over these factors: (1) the authority of the Secretary of Defense, (2) establishment of a Single Chief of Staff, (3) the land-based naval air arm, and (4) the status and the missions of the Marine Corps.[1]

The Army insisted on a strongly centralized Department of Defense under a Secretary, with the existing Departments reduced to three coordinated "branches" of subordinate status. The Navy, on the other hand, favored unification, but only "in a less drastic and extreme form." It assented to a separate Department of the Air Force, but the Navy wanted to retain full department status for the Navy with Cabinet rank for its Secretary. It viewed the role of the Defense Secretary as "a presidential deputy with clearly defined powers of decision over specific matters" who would not run the Department.[2]

To explain the reasons for differences in opinions between the two services is beyond the scope of this study, but a few comments deserve mention:

First was the different concept or approach in management. This may be traced to the differing modes of operations. Traditionally, the Army used to operate on land masses with large numbers of troops, whereas the Navy operations were scattered over the vast areas of the sea. The

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[1]Walter Mills (ed.), The Forrestal Diaries (New York: The Vikings Press, 1951), pp. 148, 163, 230.

[2]Ibid., p. 165.

former needed closer centralization of authority, whereas the latter preferred decentralized operations.[1]

Second was Secretary Forrestal's belief, based on his experience as Secretary of the Navy, that a single Secretary of Defense would be unable to handle such great responsibility and, therefore, much of his authority necessarily would fall into the hands of his military advisors. Consequently, the Defense Secretary would have authority without knowledge, and would inevitably become an impotent Secretary which meant weakened civilian control.[2]

Thirdly, unification of the Armed Forces, as Mr. Forrestal viewed it, was neither necessary nor desirable as a means of solving pressing problems, especially those of economy and efficiency.

Finally, Forrestal desired to keep the Navy intact as a distinct service, not merely as a subordinate branch of a vast Defense Department; he feared, as did the Navy, that unification was designed less to streamline the Pentagon organization than to relegate the Navy to a junior status in the military establishment. Under the various Army plans, the Navy would cease to be an autonomous department, and would not be individualistically represented in the Cabinet. He anticipated that the choice of Armed Forces Secretary would be influenced far more by the Army than by the Navy, and concluded that there was only a slight chance that he or any other naval official would be appointed to the position.[3]

Whatever the arguments, the unification became a reality when the Congress passed the bill and President Truman signed the National Security

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[1] Ibid., p. 333.

[2] Ibid., pp. 88-89. Also see Arnold A. Rogow, James Forrestal, A Study of Personality, Politics and Policy (New York: Macmillan Co., 1963), pp. 210-213, 217.

[3] Rogow, p. 214.

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Act on July 26, 1947. Ironically, James Forrestal was appointed by President Truman as the first Secretary of Defense and was confirmed on July 27, 1947 by the Senate.[1]

The National Security Act followed, in the main, specifications set up by Mr. Forrestal, which originally were developed by Ferdinand Eberstadt, his long-time consultant and friend. It established three levels or categories in the defense organization. The national machinery consisting of the National Security Council and the National Security Resources Board was placed at the apex. The national military establishment consisted of two levels; the first level, headed by the Secretary of Defense, consisted of four committees: the Joint Chiefs of Staff, the War Council, the Munitions Board, and the Research and Development Board. The second level included the three military departments—the Army, Navy, and Air Force, and the unified field commands. The Act specified that the Secretary of Defense be a civilian, and that he be the "principal assistant to the President in all matters relating to national security."[2]

His duties were (1) to establish general policies and programs for the national military establishment; (2) to exercise general direction, authority and control over the establishment; (3) to eliminate unnecessary duplication or overlap in procurement, supply, transportation, storage, health, and research; and (4) to supervise and coordinate budget matters of the component activities, including formulation of budget estimates for the establishment. However, his power was limited to "general direction, authority and control" over the departments and he was not to administer the individual departments. The Act specified that "all powers and duties

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[1]Mills, pp. 296-97.

[2]National Security Act of 1947, P.L. 253, 80th Cong., July 26, 1947.

relating to such departments not specifically conferred upon the Secretary of Defense by this Act shall be retained by each of their respective Secretaries."[1] And the powers of the Defense Secretary were not to be construed so as to prevent free access of the service secretaries to the President.[2]

As will become clearer later, the Act did not work out as originally planned. In fact two years later Secretary Forrestal, who advocated, proposed, and defended strongly the decentralized committee system of the defense organization, had to recommend significant changes. As Charles J. Hitch declares, "the National Security Act of 1947 established not a unified department or even a federation, but a confederation of three military departments presided over by a Secretary of Defense with carefully enumerated powers."[3]

Title IV of 1949

Secretary of Defense James Forrestal found himself frustrated within a little more than a year, since the system he had espoused did not work. In his first annual report he recommended a broad clarification of his powers by making it clear that the Secretary of Defense has the responsibility for exercizing "direction, authority and control" [note deletion of the word "general" in the original Act] over the military departments and defense agencies of the National Military Establishment, a provision for an Under Secretary of Defense and of a Chairman of the Joint Chiefs of Staff (either

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[1] Ibid.

[2] Ibid.

[3] Hitch, p. 15.

one of the three or a fourth), and elimination of the three service secretaries from membership on the National Security Council.[1]

Limited defense budgets imposed by President Truman through the "remainder method,"[2] and mounting interservice conflicts, notably between the Air Force and the Navy over the jurisdiction of nuclear bombs—the rapidly developing ultimate weapons—characterized the first two years of the unification experiment. Essentially the root of the disputes may be traced to the sharing of defense budgets among the services. It extended naturally from disagreements over the roles and missions of each service. Realizing the relationship of service roles and missions to the problems of budget allocations, Secretary Forrestal attempted to clarify the roles through an interservice negotiation treaty at Key West, Florida, later amended at Newport, Rhode Island. The treaty failed from the outset as a basis for the service agreement; in fact, the services disagreed about the correct interpretation even before its publication.[3]

Another significant development in this period was the establishment in 1948 of the McNarney Board, headed by Air Force General Joseph T. McNarney and composed of Vice Admiral Robert B. Carney and Army Major General George J. Richards. This board was to review and advise the Joint Chiefs of Staff of the defense budgets for Fiscal Year 1950. The board was able to cut the proposed budget from $30 billion to $23.6 billion; even so, this amount exceeded by $9.2 billion the projected ceiling of $14.4 billion

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[1] First Report of the Secretary of Defense, 1948 (Washington: U. S. Government Printing Office, 1949), pp. 3-4.

[2] During the late 1940's the military agencies were allocated an arbitrary fraction of what was left over in the budget after interest charges and other fixed costs had been taken care of. See Mosher and Poland, p. 106.

[3] Hammond, pp. 237-38.

set by President Truman. Although Mr. Forrestal played a constructive role as an intermediary between the White House and the Joint Chiefs of Staff, he had no statutory power to force a real agreement within an approved ceiling.[1]

Shortly after issuance of the Secretary's report, the Hoover Commission Task Force on National Security Organization submitted its report to Congress in January 1949. The Task Force was headed by Ferdinand Eberstadt, the chief architect of the Navy plan. It emphasized the relative weakness of the Secretary of Defense and the need to give him a greater authority over the service departments with particular reference to their fund requests and their expenditures.[2] The recommendations of the Hoover Commission Task Force closely resembled the report of Secretary Forrestal. It recommended deleting the word "general" from the Secretary's authority, sharpening the Secretary's budgetary control, eliminating the provisions to permit appeals by the service secretaries directly to the President, and removing the "reserve powers" clause—these changes would clarify and strengthen the Secretary's authority—and providing a chairman for the Joint Chiefs of Staff.[3]

However, none of the Hoover Commission Task Force recommendations to give the Secretary of Defense better control over departmental budgets were included in the President's reorganization recommendations or in the early draft of the 1949 reorganization bill—the Tydings bill. During the testimony on the Tydings bill the chairman of the Task Force, Mr. Eberstadt, suggested that the Senate consider adding fiscal provisions to the bill. He contended that without a complete overhaul in budget procedures and fiscal

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[1]Mosher, Program Budgeting, p. 32.

[2]Ibid., pp. 32-33.

[3]Ries, p. 127.

policies there would be no substantial improvement in economy and efficiency. The Senate committee asked him to write such an amendment; subsequently this suggestion became Title IV of the 1949 Reorganization Act.[1]

On August 22, 1949 the provisions of the reorganization bill became law as the National Security Act Amendments of 1949, Public Law 216. It was another step toward unification. In this amendment the primacy of the Secretary of Defense as the principal assistant to the President on defense matters was emphasized by deleting the word "general" along with the "reserved power provision." The service departments lost their status as executive departments. The Secretary was given a Deputy Secretary and three Assistant Secretaries; a chairman was provided for the Joint Chiefs of Staff, and the Joint Staff was increased from 100 to 210 officers. In effect, the National Military Establishment was converted into a single department and service secretaries were removed from the National Security Council.[2]

The more significant aspect of the amendments was a provision for Title IV, which was added as an afterthought. This created the Office of the Assistant Secretary of Defense (Comptroller) which would play a key role in the defense management reforms in ensuing years. This office was given the authority over all defense agencies in budget estimates, accounting, internal auditing, and statistical reporting, subject to the authority and direction of the Secretary of Defense. Also it provided a comptroller in each of the three military departments with authority and responsibilities similar to those of the Defense Comptroller.[3]

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[1] Ibid., pp. 127-128.

[2] National Security Act, Amendments of 1949, P.L. 216, 81st Cong., August 10, 1949.

[3] Ibid.

Also of equal importance was the adoption by the Congress of the "performance budget" idea to the defense budget as recommended by the First Hoover Commission. A performance budget was understood by the Commission as a "budget based on functions, activities, and work projects rather than in terms of things bought."[1]

In his book, Frederick C. Mosher concludes that the promise of greater economy and efficiency was the principal "selling" factor for Title IV. According to Mosher, it was designed, in the words of the House Committee on Armed Services, to "place the operation of the National Military Establishment on a sound budgetary and fiscal management basis."[2]

Defense Reorganization of 1953

Shortly after his election, President Eisenhower directed his new Secretary of Defense, Charles E. Wilson, to appoint a committee under the direction of Nelson A. Rockefeller, who was also Chairman of the President's Advisory Committee on Government Organization, to examine defense organization so as to keep his campaign pledge of "security with solvency" and a "New Look" at defense policy. The Rockefeller Plan, which eventually became Presidential Reorganization Plan No. 6 of 1953, largely reflected the views of its members: former Secretary of Defense, Robert A. Lovett; former Chairman of the Joint Chiefs of Staff, General Omar N. Bradley; former Chairman of the Research and Development Board, Vannevar Bush; and others.[3]

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[1]Commission on Organization of the Executive Branch of the Government, Budgeting and Accounting (Washington: U. S. Government Printing Office, 1949), p. 8.

[2]Mosher, pp. 41-42.

[3]Hammond, p. 262.

The Rockefeller Report stressed the need for strengthened civilian control by clarifying the authority of the Defense Secretary and his increased exercise of control through the three civilian secretaries rather than the service chiefs.[1] Also emphasized was the improved strategic planning of the Joint Chiefs of Staff, conceiving of the Joint Chiefs of Staff as a planning body rather than a command agency whose main object was to formulate plans to "cope with the challenge of any enemy." Command responsibility resided with the civilian secretaries, not with the Joint Chiefs of Staff, according to the proposals of change of the Report.[2]

Also included in the proposals was the elimination of the old statutory agencies, the Munitions Board and the Research and Development Board, their functions being given to the Secretary of Defense. Six additional assistant secretaries were to be added to the Secretary of Defense as his immediate staffs, which would make up nine assistant secretaries rather than the previous three. President Eisenhower noted that economy could be attained "only by decentralization of operations, under flexible and effective direction and control from the center" and central control was impossible because some functions were "rigidly assigned by law to unwilling boards . . . ."[3] In short, Reorganization Plan No. 6 of 1953 embodied these three major changes: strengthened civilian control, improved strategic planning, and gave effectiveness with economy.[4]

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[1]Ries, p. 151.

[2]Ibid.

[3]Message Accompanying Reorganization Plan No. 6 of 1953, Relating to the Department of Defense. Committee Reprint. H.D., 136, 83rd Cong., 1st. Sess., 1953, p. 3.

[4]Ries, p. 151.

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The Reorganization of 1958

By 1958 President Eisenhower recognized the need for expediting and strengthening the unification process, largely because of the pressures generated in the defense establishment, the psychological setback by the successful launches of Russian Sputniks, and the never-ending interservice bickering. In his Defense Reorganization Message in April 1958, President Eisenhower declared that separate ground, sea, and air warfare were gone forever, and that the next war would involve all services in a concentrated effort. He felt that strategic and tactical planning must be unified, and combat forces must be organized into "truly unified" commands; that forces must be equipped with the most efficient weapons science could develop; and forces must be "singly led and prepared to fight as one, regardless of service." And, finally, "all doubts as to the full authority of the Secretary of Defense" had to be settled once and for all.[1]

The Act was amended to provide the Secretary of Defense further increased authority and responsibilities, especially with regard to the operational direction of the Armed Forces and in the research and development area.[2] The Secretary of Defense was given greater latitude in transferring, reassigning, or abolishing the statutory functions of the three services. The Act specified that each military department would be "separately organized" under its own secretary, and that each would function under the "direction, authority and control" of the Secretary of Defense. The term "separately administered" was finally deleted.

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[1] Message from the President of the United States Transmitting Recommendations Relative to Our Entire Defense Establishment, 85th Cong., 2d Sess., H.D. 366, 1958, pp. 1-2.

[2] Reorganization Plan 1 of 1958; Department of Defense Reorganization Act of 1958, P.L. 599, 85th Cong., Aug. 6, 1958.

Also the military departments, which had been acting as executive agents in the operational control of the unified and specified commands, were taken out of the command chain, so that the line of command now runs from the President to the Secretary of Defense through the Joint Chiefs of Staff to the unified and specified commands. As a result of this enlarged function of the Joint Chiefs of Staff, the Joint Staff was increased to 400 officers from the previous ceiling of 210. A new post of Director, Defense Research and Engineering was created, not only to supervise research and development activities but to direct and control these activities.[1]

Appraisal

Upon examination of the above development of defense reorganization, it may be concluded that major organization issues and conflicts among the military services since World War II can be narrowed down to the problem of giving each service its appropriate share of the defense budget. As early as 1947, when President Truman recommended passage of the National Security Act, he envisioned that "strategy, program, and budget are all aspects of the same basic decisions,"[2] but full realization in defense management took a long time.

Another aspect of the problem would be in terms of power structure among the top hierarchies in various components and levels in the defense organization. The heart of the problem can be boiled down to the question of authority in the defense management. In previous sections it was pointed

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[1] Ibid.

[2] Special Message to the Congress Recommending the Establishment of a Department of National Defense, December 19, 1945, Public Papers of the Presidents, Harry S. Truman, 1945 (Washington: U. S. Government Printing Office, 1961), p. 546.

out that, starting with the decentralized concept in 1947, the trend has been toward centralized philosophy of management relying heavily on the decision of the Secretary of Defense. The results have been greater and stronger civilian control over military agencies in anticipation of balanced military policy and improved management of the defense establishment.

These trends seem to be natural when defense management is viewed in the light of increasing complexities and subtleties in the national security problems of today. New concepts of war and revolutionized strategy, the long lead time, and enormous costs of modern weapons and supporting system, the rapid rate of technological advances, mounting threats of potential enemies coupled with the political, economic and social aspects of war or peace, as well as the public attitudes toward war, military organizations, and the government—these and other factors have contributed towards making national security decisions more difficult and complicated than ever before. In turn, these environmental settings seem to require more centralized decision-making in the top management of the Defense Department on the basis of rational and logical calculations and in terms of the integrated politico-military policy of the nation.

Despite the many significant improvements in the financial management area in the Defense Department, especially since the enactment of Title IV of the National Security Act Amendment in 1949, not until 1961, when the team of McNamara and Hitch innovated and implemented a radically new management tool—planning and budgeting through programming—was the full integration of military activities realized and real unification of the Armed Forces achieved. In the words of one of its architects, Charles J. Hitch:

I imply no disrespect to the predecessors of the present Secretary of Defense when I say that although we have now had unification "in name" for almost eighteen years, there was little unification "in fact" until 1961, except in three areas:

(1) Unified commands had been created in all overseas theatres and for continental air defense. . . .

(2) Joint contingency plans for the use of existing forces had been prepared by the Joint Chiefs of Staff for many contingencies. . . .

(3) Finally, the civilian secretaries had taken control of the over-all level of the defense budget and brought it into line with the fiscal policy of the administration. The primary method of so bringing the defense budget into line, used by all Secretaries before the present incumbent, was to divide a total defense budget ceiling among the three military departments, leaving to each department . . . the allocation of its ceiling among its own functions, units, and activities. The Defense Secretaries used this method because they lacked the management techniques needed to do it any other way.[1] [Underlining added.]

In the following chapters the ideas behind the new planning, programming, budgeting system and the mechanisms which make the system work will be examined.

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[1]Hitch, pp. 17-18.

CHAPTER II

CONCEPTUAL FRAMEWORK OF PROGRAM BUDGETING

Development of Performance Budgeting

As described in the preceding chapter, the idea of a performance budget was adopted in 1949 for the defense budget as recommended by the First Hoover Commission. In subsequent years this was approached largely by reclassifying the budget structure. Consequently, efforts centered around rearrangements of appropriation titles as the first step in implementing a performance budget in the Defense Department. This was an effort to provide a better review on the basis of broad programs or areas of effort, to place the entire cost of a program within a single appropriation, where possible, and to align funding responsibility with management responsibilities.[1]

By 1951 the Navy had drastically reduced its appropriation titles from 52 to 21, the Army from 21 to 8, and the Air Force provided 9 appropriation titles. However, the conceptual basis of the appropriation structure among the services was quite different. The Navy based its appropriation on the organizational structure existing at that time, namely the bureau system rather than the programmatic or functional basis. Classifications in the Air Force, in general, were broader in definition and fewer in number and tended to segregate capital costs from operating costs.[2] In 1950, the Defense

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[1]Department of the Navy, Bureau of Naval Personnel, Financial Management in the Navy, NAVPERS 10792-A, 1962, p. 38.

[2]Mosher, p. 83.

Department established a classification of "Budget Categories" in order to provide a basis for summarizing and comparing the total costs of the three services. They were: (1) Military Personnel Costs, (2) Maintenance and Operation, (3) Major Procurement and Production Costs, (4) Acquisition and Construction of Real Property, (5) Research and Development, (6) Industrial Mobilization, and (7) Establishment-wide Activities.[1]

The present budget structure in the military departments is much more streamlined and standardized than the previous structure. It classifies the budget into five major categories such as:

I. Military Personnel

II. Operations and Maintenance

III. Procurement

IV. Research, Development, Test and Evaluation

V. Military Construction.[2]

There had been many significant improvements in financial management in the Defense Department besides the simplification and modernization of the appropriation structure since the implementation of Title IV of the National Security Act of 1947, as amended. Among the accomplishments were the establishment of the comptroller organization throughout the services, consumer funding and the use of stock funds, increased emphasis on budget justification, and review and establishment of and improvements in financial accounting for materiel inventories.[3]

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[1] Ibid., p. 87.

[2] Department of the Navy, Office of Comptroller, Budget Digest for FY 1966, NAVEXOS P-1355, 1965), pp. 38-73.

[3] Senate, Subcommittee on National Policy Machinery, Hearings, Organizing for National Security, the Budget and the Policy Process, 87th Cong., 1st Sess., 1961, p. 1005.

These achievements are largely credited to the first Assistant Secretary of Defense (Comptroller), Wilfred J. McNeil, who served more than ten years in that capacity, until November 1, 1959. During his tenure he played a very significant role in defense policy and exercised considerable control over the services which were considered at that time to be beyond the customary responsibilities of comptrollership.[1]

Concept of Program Budgeting

The term "program budgeting" has different meanings for different people. Roland McKean and Melvin Anshen, in their writing, have this to say:

> To some it suggests no more than a restructuring of budget exhibits, accumulating costs in more meaningful categories. . . .
>
> To other people, a program budget implies a budget that employs a longer time horizon than is commonly found in the present . . . budget with its forward projections limited to one year. . . .
>
> To still others, the concept of program budgeting includes, in addition, the use of cost-utility analysis, a logical and measuring relation of inputs to outputs. . . .
>
> Finally, there are those who understand the term to imply all the foregoing plus one significant addition—arrangements for enforcing the allocative decisions through appropriate implementation provisions. . . .
>
> . . . . The program budgeting concept . . . embraces all four of the items listed above. In other words we are interested in the organization of information for decision making, and our view of decision making is one that continues through implementation.[2] [Underlining added.]

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[1] Hammond, pp. 305-306.

[2] Roland N. McKean and Melvin Anshen, Problems, Limitations, and Risks of the Program Budget, Memorandum, RM-4377-RC (Santa Monica, Calif.: The Rand Corporation, 1965), p. 2.

Program budgeting in this sense is an entirely new concept, quite different from the performance budget concept even though they have been used interchangeably. McKean and Anshen demonstrate that the earlier concept of a performance budget should be properly classified under the first category of their definition. Its main concern is to realign and simplify the appropriation structure in line with functions. Arthur Smithies, in his writing, claims that from the point of view of relating to national strategy, the rearrangement of the budget structure has little apparent advantage over the old one.[1]

Thus, the new concept of program budgeting, defined above by McKean and Anshen, is the "real" performance-type budget, a long-sought goal since its original conception in the Report of the Taft Commission of 1912, balancing resource allocation to benefits by relating cost input with the output benefits, utilities or performances over a longer period of time. This concept provided top defense management with the means to achieve "real" unification of military activities.

Deficiencies in the Prior System

Prior to 1961 the Defense Secretaries had to resort to the so-called traditional "budget ceiling" approach. After the President set the total levels of defense expenditures, the Secretary of Defense would allocate them among the three military departments on a somewhat arbitrary basis. In turn, each military department would distribute the allocated ceiling among the functions, units, and activities. If it exceeded the approved ceiling, an addendum budget would be presented. All the budget submissions were then

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[1]Arthur Smithies, "Conceptual Framework for the Program Budget," Program Budgeting, ed. David Novick (Washington: U. S. Government Printing Office, 1965), p. 9.

reviewed concurrently by the Office of the Secretary of Defense to reach a balance which oftentimes experienced severe difficulties.[1] This review often was done in a hectic and hurried manner and crammed into a few weeks during the annual budget review.

In this practice of budget-making it was not surprising that various shrewd and ingenious techniques were employed to get more of a share of the total defense budget. One of the outstanding procedures of a department was to overemphasize and give overriding priorities to its own unique missions to the detriment of overall or joint missions. Another maneuver was to strive to lay groundwork for an increased share in future years by using various techniques such as the "foot in the door," "thin edge of the wedge," or "one-year-at-a-time," etc.[2] Lack of rational analysis tended to make it common among the services to appeal directly to the Congress, and not infrequently to resort to mass communication media to publicize the issues involved against unfavorable decisions.

The most outstanding defect in the old system was the almost complete separation between military planning and budgeting. Mr. Hitch analyzes the lack of integration between the two as follows:

> 1. . . . the planning [was performed] by the military planners and budgeting [was prepared] by the civilian Secretaries and the comptroller organization.
>
> 2. Budget control was exercised by the Secretary of Defense but planning remained essentially in the services. . . .
>
> 3. Whereas the planning horizon extended four or more years into the future, the budget was projected only one year ahead, although it was clear to all involved that the

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[1] Hitch, pp. 23-24.

[2] Ibid., pp. 24-25.

lead time from the start of a weapon development to the equipping of the forces ranged from five to ten years. . . .

4. Planning was performed in terms of missions, weapons systems, and military units of forces—the "outputs" of the Defense Department; budgeting . . . was done in terms of such "inputs" or intermediate products as personnel, operation and maintenance, procurement. . . .

5. Budgeting, however crudely, faced up to fiscal realities. The planning was fiscally unrealistic and, therefore, of little help to the decision-maker. . . .

6. Military requirements tended to be stated in absolute terms, without reference to their costs . . . [regardless of the fact that] it must be considered in relation to its cost . . . [because] military requirements are meaningful only in terms of benefits to be gained in relation to their cost. . . .[1]

Another aspect of deficiency in the old system was inadequacy in the types of data and information needed for making major defense program decisions. Mr. Hitch explained to the members of the Senate Subcommittee on National Policy Machinery that "the financial management system must be made to provide the data needed by top Defense management to make the really crucial decisions, particularly on the major forces and weapon system needed to carry out the principal missions of the Defense Establishment."[2] He also testified that the past Secretaries of Defense "just did not have the information they ought to have had, in the form in which they really needed it."[3]

All these defects in the prior system clearly explain the critical need for an improved system and they also imply the direction the new system ought to pursue.

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[1] Ibid., pp. 25-26.

[2] Senate Subcommittee, Hearings, p. 1006.

[3] Ibid., p. 1029.

Purposes and Goals of the New System

When Charles J. Hitch took the office of Assistant Secretary of Defense (Comptroller) in January 1961, he was immediately concerned by the missing link between planning and programming on one hand, and budgeting and financial management on the other. Associated with this gap, he also felt, was a severe deficiency in the information system as a basis for making crucial program decisions in the Defense Department. Early in 1961 he took action by presenting his proposals verbally, formulating them in an Office of the Secretary of Defense [OSD] paper in April, issuing the instructions for the new system to the military departments in May, and finally outlining the system to the Congress on July 24, 1961.[1]

The fundamental purpose of the new system was to provide top defense management with the information for major program decisions needed to accomplish the national security objectives. The types of major decisions have been elaborated by G. H. Fisher of the Rand Corporation as follows:

> (1) Decisions as to whether weapon system X, Y, or Z (or some combination thereof) should be chosen to perform some national security task in a future time period.
>
> (2) Decision as to the <u>force size</u> of certain weapon (support) systems, particularly where these systems are complementary and not in the same military department. . . . It is a "joint" question which must be viewed in the context of the <u>total</u> strategic picture. . . .
>
> (3) In some instances, decisions regarding major operational concepts (hardness, mobility, alert capability, dispersal, etc.) of key weapon (support) systems and forces.[2] [Underlining added.]

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[1] G. H. Fisher, <u>The New OASD (Comptroller) Programming/Budgeting Process</u>, Memorandum RM-3048-PR (Santa Monica, Calif.: The Rand Corp., 1962), pp. 1-2.

[2] <u>Ibid.</u>, p. 3.

With regard to the information required by the new system, Mr. Hitch says:

> First, he [the Secretary of Defense] needs to know the alternative weapons system available to perform each of the missions, both now and in the future.
>
> Second, he needs to know the effectiveness of each of these systems in relation to the missions to be performed.
>
> Third, he needs to know the cost of each of these systems in relation to their military effectiveness. Indeed, he needs to know the cost not only for one year but for a much longer period, ideally for over its entire life cycle. And, he must know the full cost—both the initial investment cost and the annual operation cost.[1] [Underlining added.]

The above excerpts provide the basis for the new system and give some insight into its structure. The following seven goals of the new system will further the understanding of the new system:

> 1. Planning oriented around major missions. Program planning is done on the basis of broad military missions which cut across traditional organizational lines, rather than on the basis of unilateral plans and priorities of individual Services.
>
> 2. Ability to relate resource "inputs" to military "outputs." The programming system is designed to provide both financial and nonfinancial estimates of the resource inputs required over time in order to obtain specified time-phased military outputs.
>
> 3. Coordination of long-range planning with budgeting. Budgets and funding decisions must be compatible with long-range programming decisions. Budgeting will continue to involve close scrutiny of detailed resource requirements needed during the relatively short-range budgeting period, but any decisions made at this stage should normally be compatible with currently approved programs.

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[1] Department of the Navy, Office of the Comptroller, Program Change Control System in the Department of the Navy, NAVEXOS P-2416, 1962, pp. 1-4, 1-5.

4. Continuous appraisal of programs. The programming system must provide a means for continuous review of program decisions and a mechanism for changing the programs whenever a need for a change is recognized. Budgeting and funding, tied as they are to the annual appropriation cycle, must, of course, continue on an annual basis; but this does not in any way preclude continuous appraisal of long-range programs.

5. Progress reporting. Control of approved programs must be exercised through a system of progress reports which highlight significant deviations from approved plans so that timely action may be taken.

6. Ability to make cost-effectiveness studies. The programming system must provide a routine capability for making cost-effectiveness studies of alternative force structures. The costing techniques used must be accurate enough to provide a basis for comparing programs, yet at the same time responsive enough to allow frequent studies of many alternatives without imposing repeated, burdensome workloads on Department of Defense personnel.

7. Integration of Department of Defense information systems. The programming system imposes rather heavy requirements for information on the Services. Other reporting systems having similar requirements should be revised in order to avoid duplication. Through such a process, the programming system can play a major role in the development of an integrated Office of the Secretary of Defense management system.[1]

In summary, the new programming system has three aims: (1) To permit analysis of total force structures for all of the services in terms of common missions or national objectives which cut across traditional military service boundaries; (2) to project the resource inputs or financial requirements of the proposed force structures over an extended period of years on a continuing basis so as to reveal full cost implications; and (3) to introduce systematic quantitative analysis in evaluating alternatives as an aid in making major program decisions. The premise here is

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[1]Department of the Navy, Office of the Chief of Naval Operations, The Navy Programming Manual, Parts I and II, OPNAVINST-1, 1965, p. 1-2-2.

that, according to Mr. Hitch, "all military problems" are in essence "in one of their aspects, economic problems in efficient allocation and use of resources."[1]

It is apparent, therefore, that the structure of the new planning, programming, budgeting system is composed of five elements:

- A program structure in terms of missions, forces and weapons with its supporting systems.
- The analytical comparisons of alternatives.
- A continually updated long-range force structure and its financial program.
- Related year-round decision-making on new programs and changes.
- Progress reporting to test the validity and administration of the plan.[2]

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[1]Charles J. Hitch and Roland N. McKean, The Economics of Defense in the Nuclear Age (Cambridge, Mass.: Harvard University Press, 1960), p. v.

[2]David Novick, Program Budgeting in the Department of Defense, Memorandum RM-4210-RC (Santa Monica, California: The Rand Corporation, 1964), p. 10.

CHAPTER III

STRUCTURE OF THE NEW SYSTEM

Planning, Programming, Budgeting and Their Relationships

What is planning? What is programming? And what is budgeting? What are their relationships? David Novick of the Rand Corporation, who suggested "program budgeting" for the U. S. Air Force in 1954, defines planning as "the selection of courses of action through a systematic consideration of alternatives, and programming as the more specific determination of the manpower, materiel and facilities necessary for accomplishing a program. They are really aspects of the same process, they differ only in emphasis."[1]

To be more specific, planning is the process of determining actions and specifying time-phased military force requirements to accomplish a mission; whereas programming is the process of translating planned military force requirements into time-phased manpower and materiel resources requirements; and budgeting is the process of translating manpower and material resource requirements into time-phased financial resources, that is, a budget.[2] In essence, programming is the intermediate process between planning and budgeting.

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[1] Ibid., p. 6.

[2] Department of the Navy, Presentation Notes for "DOD Programming System in Department of the Navy," 1965, p. 7.

Programming provides the much needed bridge filling the gap between planning and budgeting. It is a "transformation device" between the two. It relates means to ends, and objectives to resources, in terms of development, production deployment, operations of forces or systems. The important point is that major decisions in the federal management have to be made in terms of "programs," in fact, program-decision became budget-decision and vice versa in the new programming system.[1] This process is facilitated by introducing a new concept of "major programs" and their components, that is, "program elements."

Major Programs

Military activities are grouped in terms of the primary missions to be performed and are represented by major programs. Similar military missions of the services are aggregated into broad functional classifications such as all-out war, continental defense, conventional limited war, transportation of military forces to overseas, and supporting activities. Currently eight major programs are maintained, such as the following:

Program I. Strategic Retaliatory Forces: the forces that are designed to carry out the long-range strategic mission and to carry the main burden of battle in general. They include the long-range bombers, the air-to-ground and decoy missiles, and the refueling tankers; the land-based and submarine-based strategic missiles; and the systems for their command and control.

Program II. Continental Air and Missile Defense Forces: those weapon systems, warning and communication networks and ancillary equipment required to detect, identify, track, and destroy unfriendly forces approaching the North American Continent.

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[1]Senate Subcommittee, Hearings, p. 1006.

Program III. General Purpose Forces: the forces relied upon to perform the entire range of combat operations short of general nuclear war. These include most of the Army's combat and combat support units, virtually all Navy units, all Marine Corps units, and the tactical units of the Air Force.

Program IV. Airlift and Sealift Forces; those airlift and sealift forces required to move troops and cargo promptly to wherever they might be needed. Included in the airlift forces are both the MATS transports and the Air Force Tactical Air Command troop carrier aircraft. The sealift forces include the troop ships, cargo ships, and tankers operated by the MSTS and the "Forward Floating Bases."

Program V. Reserve and National Guard Forces: equipment, training, and administration of the Reserve and National Guard personnel of the several services.

Program VI. Research and Development: all research and development effort not directly identified with elements of other programs—i.e., where there has been no decision to produce for inventory.

Program VII. General Support: support activities of the several services and the agencies which serve the entire Department of Defense. It constitutes an "all-other" or residual category of activities or programs and includes all costs not capable of being directly or meaningfully allocated to the other major programs.

Program VIII. Military Assistance: equipment, training, and related services provided for armed forces of allied and friendly nations.[1]

To recapitulate, major programs cut across the entire defense establishment without regard to military service or agency, program elements aggregated into a major program either complement each other or are close substitutes which should be considered together in making major program

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[1]Novick, pp. 13-14. Program IX, Civil Defense, is omitted since it has been dropped from the program list.

decisions, and all major programs taken together constitute the complete defense establishment.

Program Elements

Major programs are subdivided into program elements. The program element is the smallest unit of military output controlled at the Department of Defense level. Program element is defined as "integrated combinations of men, equipment and installations whose effectiveness could be related to the national security objectives."[1] Thus they are the forces, weapons or support systems, and similar types of integrated activities by means of which the missions are accomplished.[2] Often-cited examples are the B-52 bomber force, POLARIS Fleet Ballistic Missile System, missile battalions, recruit training, the Manned Orbiting Laboratory development project, etc., together with all of the supplies, weapons and manpower needed to make them militarily effective. To illustrate, the program element contained in Program I, the Strategic Retaliatory Forces, are described in the following:

Program I. Strategic Retaliatory Forces

A. Aircraft Forces

B/RB-47
RB-47
B-52
AGM-87
B-58
KC-97
KC-135

B. Missile Forces, Land-Based

ATLAS
TITAN
MINUTEMAN

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[1] Hitch, Decision-making for Defense, p. 32.

[2] Novick, p. 12.

C. Missile Forces, Sea-Based

POLARIS System
REGULUS System

D. Command Control, Communications and Support

SAC Control System (465L)
PACCS (KC-135/B-47)
UHF Emergency Rocket Communications System
Base Operating Support
Advanced Flying and Missile Training
Headquarters and Command Support[1]

There are about 1000 program elements in the total defense establishment of which the Navy and Marine Corps have 284 program elements.[2] The program element is important since it is a basic building block of the programming system. Every defense activity in the Department of Defense falls within one of the program elements. In essence, a program element represents a well-defined, homogeneous aggregation of military activity; the very purpose of the program element structure is to aggregate these units most meaningfully and conveniently for top-level decision-making. All program elements taken together make up the complete defense establishment.[3]

Five Year Force Structure and
Financial Plan (FYFS&FP)

The culmination of the programming system is reached in the Five Year Force Structure and Financial Plan. It is the foundation of the new system and basically is the summary of all approved programs for the Department of Defense. Once the Secretary of Defense formally approves the Plan, it becomes

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[1] Ibid., p. 15.

[2] Department of the Navy, Presentation Notes for "DOD Programming. . ," p. 26.

[3] Ibid.

binding for programming purposes on all components of the Department. It projects the forces for eight years and the remainder of program resources levels for five years into the future. For full cost implications, five years seem to be reasonable in terms of time-span because that period is short enough to make possible reasonably accurate estimates and long enough to provide a realistic approximation of the full cost.[1]

All of the program data, together with a description of the forces, their tasks and missions, procurement lists, facility lists, and so forth, constitute the Five Year Force Structure and Financial Plan. In testimony before a Senate Subcommittee, Mr. Hitch explained:

> . . . as each year goes by we will project our requirements and programs forward another year so that at all times we will be looking at least 5 years beyond the current budget year. Thus the Department of Defense will have at all times tentatively approved programs, fully costed, and projected at least 5 years into the future, to serve as a planning guide to the entire Defense Establishment.[2]

Program Change Control System

It will be recognized from the outset that this total "inventory" of the entire defense establishment will become ineffective or even meaningless unless it provides some flexibility to meet changing conditions, new developments and new requirements at various times during the year. Obviously this goal can be realized only through the use of some type of a continuous review process rather than by the traditional comprehensive annual requirements review. Consequently, a new program change control system was developed

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[1]Charles J. Hitch, "Management of Defense Dollars," The Federal Accountant, Vol. 11, No. 4, June, 1962, 35.

[2]Senate Subcommittee, Hearings, p. 1009.

to help attain this purpose. It provided for two kinds of changes, one for the changes which exceed the established threshold, for the approval of the Secretary of Defense in the form of Program Change Proposals, commonly referred to as PCP's; the other is for the changes below the threshold. In this connection it should be noted that the Five Year Program lies at the heart of these changes. Thus, when a change proposal is approved by the Secretary of Defense, the revised program becomes the new basis for execution and control and, as a consequence, the latest approved plan always reflects the current best prediction of future events.[1]

Program Change Proposals (PCP's).--All changes to the Five Year Force Structure and Financial Plan which go beyond the established threshold must be submitted by the service secretaries in the form of Program Change Proposals for the approval of the Secretary of Defense or the Deputy Secretary of Defense. PCP's are submitted when the services desire to introduce new program elements, make major changes to existing elements, or when any program element deviates beyond prescribed limits (thresholds) from the schedule and costs projected when it was approved.

Thus, when the assumptions of cost and progress upon which approval was based become significantly affected, the system automatically brings the matter to the attention of the Secretary of Defense through "management by exception." Program slippages, cost overruns, or failure to meet reliability goals, may change the character of the program to the degree that it is no longer the best on a cost-effectiveness basis, and reorientation or cancellation may be required.[2]

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[1]Department of the Navy, The Navy Programming Manual, p. 1-3-5.

[2]Ibid.

Below threshold changes.--Secretaries of the military departments are authorized to approve changes to the Five Year Force Structure and Financial Plan below specific thresholds established by the Secretary of Defense. If the cumulative effect of such changes, including additional changes proposed, equals or exceeds an established threshold, a PCP covering all of these changes must be submitted. Below threshold changes must be within approved Total Obligational Authority.[1]

Advantages of Program Change Proposals.--The advantages of the Program Change Proposal system are several. First, it makes it possible to maintain at all times an approved force and financial plan projected over a span of five years.[2] It provides for year-round decision-making without regard to the annual budget cycle.

Second, the submission of a PCP by a service comes as the culmination of a major study which involves estimates of cost and effectiveness over the long-term period, and considers alternatives and trade-offs.

Third, through this system, costs are continuously related to missions and military effectiveness and as a result economy and efficiency will be improved by weighing the costs and benefits of alternatives.

Fourth, the PCP system enhances the services' ability to present the Secretary of Defense with carefully-worked-out program proposals and pertinent data to support them and, in turn, it permits a review and evaluation by the Defense Department agencies in the light of the total defense program without regard to question of service jurisdiction.

Finally, it facilitates upward, downward, or horizontal communication. Proposals flow upward and decisions flow downward, as reflected in

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[1] Ibid.

[2] Novick, pp. 21-23.

the Five Year Program, and meantime closer coordination is facilitated through exchange of information among the components concerned. Staff review in the Department of Defense is accelerated by designation of a coordinating office for each proposal, responsibile for "spearheading" and integrating the review and proposing the response of the Secretary of Defense. The coordinating office is required to inform the Secretary of differences in opinion among the participants, if any.

Cost Categories

In order to reveal full cost implications of a weapon system, the cost must cover not only one-time costs for development, procurement and construction of facilities, but also the recurring annual operating costs. The cost of each program element is broken down into three categories, namely, (1) research and development, (2) initial investment, and (3) annual operating costs.[1] These cost categories are defined as:

> (1) Research and Development - those program costs primarily associated with research and development efforts including the development of a new or improved capability to the point where it is ready for operational use.
>
> (2) Investment - those program costs required beyond the development phase to introduce into operational use a new capability, to procure initial, additional or replacement equipment for operational forces or to provide for major modifications of an existing capability.
>
> (3) Operating - those program costs necessary to operate and maintain the capability.[2]

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[1]Department of the Navy, The Navy Programming Manual, pp. 1-6-2 and 1-6-3.

[2]Ibid.

Such classification of costs highlights the key decision points in the life of a weapon system. Because of the tremendous outlays involved in developing a new weapon system—for example, $2.5 billion was spent for POLARIS, $1.5 billion on the MINUTEMAN, $2.3 billion on the ATLAS, $1.5 billion for two prototypes of the B-70, etc.—a determination to go ahead with fullscale development in itself is a major decision. It is also obvious that, before initiating production and deployment, it is necessary to know the investment costs of a weapons system, which often involve billions of dollars. Finally, information must be available on the cost of operating the proposed forces each year. In many cases, for example a B-52 wing, the five-year operating costs are about equal to the initial equipment costs, and in some few cases, for example an infantry division, the operating costs for one year are actually greater than the initial investment costs.[1]

Costs are measured in terms of "total obligational authority" (TOA)—the amount required to finance the program element in a given year, regardless of when the funds are appropriated by the Congress, obligated, placed on contract, or spent. The costs of each program element are broken down by various budget appropriation accounts in order to facilitate the conversion of program costs to the budget, and vice versa.[2]

Resource Categories, Material and Construction Analyses

Although in top-level programming, primary emphasis is placed on program elements, situations often arise where decisions are called for specific resource inputs which are in a significant degree independent of

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[1] Hitch, Decision-making for Defense, pp. 33-34.

[2] Ibid., pp. 32-33.

program element decisions, such as a decision with regard to the replacement of a two and one-half ton truck. Moreover, even in cases where independent resource decisions are not called for at the Office of the Secretary of Defense level, a need exists for expressing program element decisions in terms of their implied resource requirements. This permits explicit planning for the acquisition and financing of resources, provides a convenient link with budgets, and affords a means of subsequent control of programs. Resource inputs are defined in terms of "resource categories."[1]

A resource category is either a unique type of resource or homogeneous grouping of related resources. Every resource input falls within one of the categories, so that the sum of all resource categories equals the total Defense Department resource requirements. There are four major types of resource categories: Items of equipment, military construction, manpower, and functions and activities financed under the Operations and Maintenance appropriations. Whenever possible, resource categories are measured in both financial and nonfinancial terms.[2]

Resource categories are now listed in two annexes to the Five Year Force Structure and Financial Plan, a Materiel Annex and a Construction Annex.[3] The former is a listing and collection of data sheets for the more important procurement line items and is composed of two parts. Part I is a line-item "shopping list" showing the quantity and cost of all procurement line items that exceed $2 million in one year; it covers the current year, budget year and the four ensuing fiscal years. Part II, sometimes called

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[1]Department of the Navy, The Navy Programming Manual, p. 1-3-3.

[2]Ibid.

[3]Ibid., p. 1-3-4.

the "Weapons Dictionary," is a collection of data sheets which contain descriptive information and data on production requirements, inventory, cost and operations for a particular line item.

The Construction Annex shows approved construction projects for the current year, the budget year, and four ensuing fiscal years. It contains descriptive information, cost data, and scheduled dates.

Since the sum of all program elements constitutes the total military output and the sum of all resource categories equals the total resource input, these two dimensions provide different slices of the same basic overall defense programs. Neither dimension alone gives sufficient information for all Office of the Secretary of Defense planning and control. Whereas, both taken together provide a complete picture of the sources and uses of resources among the various defense activities.[1]

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[1] Ibid., pp. 1-3-4, 1-3-5.

CHAPTER IV

OPERATION OF THE SYSTEM

As its name implies, the planning, programming, and budgeting system operates in three phases: (1) military planning and requirement determination; (2) formulation and review of the programs, and (3) development of annual budget estimates. To visualize the system in use, the operation of each phase will be outlined. The first two phases—planning and programming—are conducted on a continuing year-round basis, while budgeting involves a once-a-year operation coinciding with the federal budget cycle.

Phase 1. Military Planning and Requirements Determination

As defined in the preceding chapter, planning is the process of determining actions and specifying time-phased military force requirements to accomplish a mission. In the new system it starts with the Joint Strategic Objectives Plan [JSOP] by the Joint Staffs in the Joint Chiefs of Staff with help from the respective planning groups in the military departments.

However, they are not merely requirements studies in the traditional sense; rather, they are military economic studies which compare alternative ways of accomplishing national security objectives. They try to determine the plan that accomplishes the most for a given cost or achieves a given objective at the least cost.[1] These are essentially "cost-effectiveness

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[1] Hitch, "Management of Defense Dollars," p. 38.

studies" or systems analyses which will be described in the following chapter. It is important to note that the tendency to state military requirements in absolute terms has been discouraged since, in reality, resources are always limited and the alternative uses of available resources must be a prime consideration.

Originally the review of military requirements started in March 1962, when Secretary McNamara assigned approximately 100 study projects to the Joint Chiefs of Staff, the military departments, and various components of the Office of the Secretary of Defense. Many of these projects were concerned with critical and difficult requirements problems such as the need for and emphasis to be placed on strategic bombers and missiles, Anti-Submarine Warfare [ASW], amphibious forces, the quality of conventional war forces and how to improve them, the development of a new tactical fighter aircraft, and so on.[1]

Now each year the Joint Chiefs of Staff have the opportunity to recommend to the Secretary of Defense through the Joint Strategic Objective Plan [JSOP] the military forces and major problems which they consider should be supported over the next five to eight years. In the spring of each year the Secretary of Defense reviews these recommended forces and programs, makes preliminary decisions, and provides "tentative force guidance" to the military departments. This serves as a basis for the preparation of their formal change proposals to the Five Year Force Structure and Financial Plan.

The principal "cost-effectiveness studies" are scheduled for completion at about the same time in order to provide the Secretary of Defense and his principal advisors information necessary to cope with the most critical

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[1]Department of the Navy, Program Change Control System. . ., p. 2-2.

and difficult requirement problems.[1] Many of the requirements studies originate with the Secretary of Defense; others come from the Joint Chiefs of Staff, the military departments, and various elements of the Secretary's staff.[2]

Phase 2. Formulation and Review of Programs

Programming was defined in the preceding chapter as the process of translating planned military force requirements into time-phased manpower and materiel resource requirements. It is a continuous, year-round operation in the new system. In this phase, the cost and effectiveness of alternative mixes of weapon systems to meet certain generalized requirements within the framework of "major programs" are scrutinized and determined. The process of the program review is a team effort with participation by the service secretaries, the Chiefs of Staff and the functional assistant secretaries of Defense. In the process of discussion, the implications of various ways in which a war might develop would be explored.

The Five Year Force Structure and Financial Plan serves as the only official approval of programs and once approved by the Secretary of Defense it is binding for programming purposes on all components of the Defense Department. As pointed out earlier, all programs are subject to continuous changes and therefore are updated every other month; in the Five Year Program this procedure is accomplished through the program change control system. A brief summary of the procedure is like this: Submission of program change proposals by any major component of the Defense Department; their review by all interested components; the Secretary's decision on each

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[1]Hitch, Decision-making for Defense, p. 31.

[2]Ibid., p. 32.

proposal; and finally, the assignment of responsibility for carrying out a particular decision to the appropriate military department or agency. Hundreds of program change proposals have been submitted each year requesting changes involving billions of dollars.[1]

Although changes may be proposed at any time during the year, the majority of changes occur during the summer months, following the annual review of the Joint Strategic Objectives Plan by the Joint Chiefs of Staff. Usually by August the Secretary of Defense renders the majority of decisions regarding the changes. If approved, changes are communicated downward and the military departments receive the decisions about the program change proposals and evaluate them; within ten days the appropriate department submits a Program Element Summary Form acknowledging receipt of the authorized changes as well as updating the Five Year Programs.

The initial development of the programming system commenced in May 1961, and according to Mr. Hitch it was "an enormous undertaking."[2] The problem was to sort out all of the myriad programs and activities of the defense establishment and regroup them into meaningful program elements. In addition, they had to make program decisions that would form the basis for guidance to the services on the preparation of the Fiscal Year 1963 budget through a critical examination, by the Secretary of Defense with his military advisors, of a range of alternative programs in terms of cost-effectiveness.

It was at this stage that the major programs, which were originally called "program packages," were formulated as a result of this analysis. Also various categories of the costs, the resources and measurements of the

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[1] Ibid., p.38.

[2] Ibid., p. 32.

costs in terms of "total obligatory authority" which are now being used were introduced at this time for uniform usage.

The review of programs was completed by the Secretary of Defense on September 22, 1961, and a guidance letter was issued to the military department which was used as the basis for FY 1963 budget. This program guidance tabulated the approved forces and programs for FY 1963 through 1967 for each of the programs together with explanatory notes and procurement lists, where appropriate.[1]

Phase 3. Development of Annual Budget Estimates

The third phase of the system, budgeting, has been defined as the process of translating manpower and materiel resource requirements into time-phased financial resources. It is apparent that in this new system of program budgeting the budget-making will consist only of converting a one-year slice of approved programs within the Five Year Programs into an appropriate budget format and supporting detail. According to Mr. Hitch, "in such a system not only would budget decisions be program decisions . . . but program decisions would be budget decisions," since "decisions to embark on programs would be explicitly decisions to provide the resources required to carry them out."[2]

It should be emphasized, however, that the program review is not a substitute for the annual budget review. Rather, it is designed to provide a basis for the preparation of the annual budget as well as guidance for future planning.[3]

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[1]Department of the Navy, The Program Change Control System, p. 2-9.

[2]Ibid., p. 1-1.

[3]Hitch, Decision-making for Defense, p. 39.

Having the Five Year Programs updated at all times, the Defense Department is able to draw up rather quickly a detailed defense budget by using the first increment of the approved programs, together with other policy guidance, as the basis. This makes a much more orderly and thorough budget preparation possible, since it would provide the time for greater detailed review of all the factors involved in the preparation of a defense budget such as shopping lists, production schedules, lead time, activity rates, personnel grade structures, cost estimates, status of funding, and so on.[1]

Budget preparation and submission

The Defense budget is prepared annually and expressed by appropriation titles which are organized in terms of resource categories as noted in chapter II. Titles are classified into five categories: Military Personnel; Operation and Maintenance; Procurement; Research, Development, Test and Evaluation; and Military Construction. They are somewhat different from the program structure. In contrast to his original thought, Mr. Hitch recognizes a certain advantage in leaving the appropriation structure intact. He asserts that the Defense Department must be managed not only in program terms but also in terms of resources in the first place; that the appropriation structure also provides needed flexibility for adjustment in the program; and finally that Congress prefers the existing structure, particularly the Appropriation Committees.[2]

The budget covers a three-year period at one time: (1) Prior Year - the fiscal year immediately prior to the current fiscal year. It indicates

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[1]Senate Subcommittee, Hearings, p. 1009.

[2]Hitch, Decision-making for Defense, pp. 29-30.

how funds, previously approved by the Congress, were actually utilized; (2) Current Year - the fiscal year in which the services are operating. It reflects the latest planned use of funds approved by the Congress for the year; (3) Budget Year - the fiscal year immediately following current fiscal year. It reflects the request of an agency to the Congress for funds to support its programs.

Normally, the annual budget submission to the Secretary of Defense is made annually on 1 October, some nine months prior to the applicable fiscal year. All approved programs that are within the Five Year Program as of the established date are included in a basic budget submission. Usually the Office of the Secretary of Defense and the Bureau of the Budget analysts make a joint review of the budget requests by the military departments and defense agencies. Based on such review, tentative budget decisions on specific items or programs are made by the Secretary of Defense.[1] These decisions are transmitted to the components concerned in the form of "Subject/Issue Papers," more commonly known as "Operation Snowflake."

These procedures show a marked difference from the pre-1961 practice where one overall markup ("Gray Goose") was common.[2] If an individual service secretary or head of a defense agency disagrees with a decision, he has the opportunity to appeal by submitting to the Secretary of Defense a position paper—a reclama—prepared by bureaus, offices and program sponsors. After consideration by the Defense Secretary of each reclama, a final decision is made. Tentative decisions automatically become final if no appeal is made.[3] Based on the decision, the usual budget schedules are prepared

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[1]Department of the Navy, The Navy Programming Manual, p. 1-5-5.

[2]Department of the Navy, The Program Change Control System, p. 20.

[3]Department of the Navy, The Navy Programming Manual, p. 1-5-5.

and submitted to the Bureau of the Budget for inclusion in the President's Budget. Normally the President presents his budget requests to the Congress soon after it convenes in January of each year.

The Department of Defense submits its budget to the Congress in two ways—in conventional terms, and in program terms. The Secretary of Defense presents and justifies it by programs. He has primary responsibility to defend the defense budget as a whole, and each element of a program is justified and defended by the cognizant service department or agency.[1] However, the Defense Subcommittees on Appropriations in both Houses have not deviated their hearings significantly from the traditional ways.

Cost Information System

It must be clearly understood that a principal goal of the programming system in the Defense Department is the capability for making rapid cost comparisons of alternative weapon systems or force structures. In a Senate hearing, Mr. Hitch stated explicitly the importance of cost in the new system in the following terms:

> Mr. Tufts: . . . Could you indicate what you think this difference [between the old and the new system] really is?
>
> Mr. Hitch: There are two essential differences it seems to me. One is that <u>the costs are assembled by programs</u>. . . .
>
> The other is that <u>the costs are assembled by programs 5 or 6 years in advance</u>. . . .[2] [Underlining added.]

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[1] Senate Subcommittee, <u>Hearings</u>, p. 1012.

[2] <u>Ibid.</u>, p. 1029.

Later in the same testimony he again emphasized that:

> What we are attempting to do with the program package approach is to provide this [costs] information systematically and comprehensively. In the past it has been provided, from time to time, on the basis of special requirements.[1] [Underlining added.]

Despite the need for program element costs the inherent difficulties involved in allocating fixed costs, and, in particular, joint costs, deny an easy solution. Errors are due in part to the fact that there always exist varying degrees of uncertainty which are inevitable in the development of a new weapon system. These errors in estimating costs also have been caused by overly optimistic estimates of the effort required to achieve a given result or by overlooking or ignoring significant elements of cost.

Mr. Hitch classifies the latter as the problem of estimating the development and production costs of new weapon systems and he cites that in the past the costs have been underestimated by factors of two to ten, not two to ten percent, but 100 to 900 percent![2] Despite the many efforts to improve the situation by establishing the Cost and Economic Information System in the Defense Department, the Cost Information Systems in the services, and constructing computerized "cost models,[3] much more remains to be done. A complete study of the costing program is beyond the scope of this study; however, its importance to the programming system should not be overlooked.[4]

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[1] Ibid.

[2] Hitch, Decision-making for Defense, pp. 64-65.

[3] Department of the Navy, The Navy Programming Manual, p. 1-4-20.

[4] For more detailed information see Department of the Navy, Office of the Comptroller, Department of the Navy Cost Information System: Parts I, II, and III. NAVEXOS P-2412, Rev. 2, July, 1965.

Program Progress Reporting

It is an axiom in management that planning, to be effective, should provide a means to measure actual progress against approved plans so that management can take corrective actions if performance shows significant deviations from the established norms or standards, and more importantly to initiate preventive measures before any significant deviations occur. The need for progress reporting on a program basis has been clearly stated by Secretary McNamara:

> The effective management of approved programs also requires a reporting system that keeps top officials constantly informed of the progress being made in achieving established objectives —in both physical and financial terms on the basis of program entities and not merely in terms of the bits and pieces of programs financed in various appropriation accounts.[1]

The Defense Department has established a progress reporting system in order to determine how closely the military departments are meeting the base programs in the Five Year Force Structure and Financial Plan as modified through the program change procedure. It provides top management in the Defense Department with necessary information on actual performance of a program at a sufficiently early date so that corrective or preventive measures can be initiated at the earliest possible time.

A physical progress reporting system and resource category accounting and reporting system have been developed in the Department of Defense. The essential characteristics of these systems are:

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[1]"Annual Report of the Secretary of Defense, July 1, 1960 to June 30, 1961," Department of Defense, Annual Report for FY 1961 (Washington: U. S. Government Printing Office, 1962), p. 27.

(1) Physical progress reporting -- A monthly progress reporting which covers performance of selected material items, less than 200 items in number, against established milestone schedules. For each item, the report shows the milestones scheduled for completion during the current month and during the following three months, actual and anticipated accomplishments, and actions taken or required. The submitting department or agency indicates implications of changes in the milestone schedule and in financing requirements.[1]

(2) Resource category accounting and reporting -- A collection of accounting information on resource categories. The initial reporting requirements are confined to the "capital accounts"--Research, Development, Test and Evaluation; Procurement; or Military Construction appropriation.[2]

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[1]Department of Defense, Programming System for the Office of the Secretary of Defense, 1962, p. III-3.

[2]Ibid.

CHAPTER V

COST-EFFECTIVENESS ANALYSIS - AN INTRODUCTION

In the preceding chapters it was noted frequently that one of the major objectives of the programming system is to determine the ways that contribute most for a given cost or achieve a given objective for the least cost in accomplishing national security objectives by comparing a range of alternatives. Also it was pointed out that the cost-effectiveness analysis or system analysis has been extensively utilized in the first two phases of program budgeting: (1) the determination of military requirements, and (2) a review and analysis of programs and program elements. This chapter will describe briefly the concept of this approach and its implications for defense problem-solving.

What Is Cost-Effectiveness Analysis?

Essentially, cost-effectiveness analysis or system analysis in defense problems is used to answer the following questions: What strategy, force or weapon system offers the greatest amount of military effectiveness for a given outlay? Or, looking at the problem from another angle, how a given level of military effectiveness can be achieved at the least cost. These decisions cannot be delegated to budgeteers and comptrollers, since, basically, strategies are the ways of using resources or budgets to achieve military objectives. These decisions are the prime responsibilities of top defense management.

G. H. Fisher has listed the major characteristics of cost-effectiveness as follows:

(1) A most fundamental characteristic is the systematic examination and comparison of alternative courses of action which might be taken to achieve specified objectives for some future time period.

(2) Critical examination of alternatives typically involves numerous considerations, but the two main ones are assessment of the cost and the benefits or utilities pertaining to each of the alternatives being compared to attain the stipulated objectives.

(3) The time context is the future--often the distinct future of five, ten or more years.

(4) Because of the extended time horizon, the environment is one of uncertainty--very often great uncertainty.

(5) Usually the context in which the analysis takes place is fairly broad (often very broad) and the environment very complex with numerous interactions among the key variables in the problem.

(6) While quantitative methods of analysis should be utilized as much as possible, because of items (4) and (5), purely quantitative work must often be heavily supplemented by qualitative analysis.

(7) Usually the focus is on research and development and/or investment-type decision problems, although operational decisions are sometimes encountered.

(8) Timeliness is important. A careful, thorough analysis which comes six months after the critical time of decision may be worth essentially zero, while a less thorough--but thoughtfully done--analysis completed on time may be worth a great deal.[1]

Primary Purpose of the Analysis

It should be stressed that the primary purpose of the cost-effectiveness analysis is to assist the decision-maker in such a way that his

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[1]G. H. Fisher, "The Role of Cost-Utility Analysis in Program Budgeting," Memorandum RM-4173-RC (Santa Monica, Calif.: The Rand Corporation, 1964), pp. 3-4.

intuition and judgment are better than they would be without the results of the analysis. Thus, the outcome of the analysis will not take the place of decision-making; rather it will sharpen the intuition and judgment of the decision-maker. Nevertheless it should be remembered that only a small amount of sharpening of judgment may on occasion have a high pay-off.[1] In short, 'quantified common sense' is called for on the part of analysts.[2]

Significance of Cost-Effectiveness Analysis

The fact that resources are always limited in contrast to unsatiatable needs and wants in every human endeavor calls for an economic choice from available alternatives in order to have a rational decision. The basic idea behind cost-effectiveness analysis is that just as a private firm seeks to obtain maximum profit out of the least cost, so the problem of defense spending can be thought of as the process of weighing the worth of defense products or outputs against their costs. Evaluation of defense spending in terms of costs and benefits is more difficult than that of private business, since there is no price tag attached to defense output; consequently no profit criterion can be established.

However, systematic and quantitative analyses of defense spending are more important than business outlay because of their far-reaching impact on the economic, political, and social aspects of the nation. One of the problems in decision-making for defense is the vast array of alternatives among which decisions are to be made; another is the fact that there are many diversified and complex relevant factors involved in these decisions.[3]

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[1] Ibid., pp. 5-6

[2] Hitch, Decision-making for Defense, p. 55.

[3] Ibid., p. 56.

To some degree this quantitative approach serves to mitigate interservice rivalries which are often heavily loaded with sentiment and, therefore, tend to entail everlasting arguments without a sound basis. In addition, this new approach has helped significantly to reorient traditional military thinking to a new and more systematic way.

Quantity, Quality, and Marginal Contributions

History reveals many examples when the cheaper and technically less efficient weapon proved to be the "best" simply because its lower cost made it available in great numbers. But there were other times in history when "quality" appeared to have decisive effects. Thus it would be reasonable to assume that historically the pendulum swings back and forth between quantity and quality, and neither cost nor effectiveness alone is a sufficient basis upon which to choose a weapon system. Both factors must be considered simultaneously and in relation to each other.[1]

The cost-effectiveness studies are useful for another kind of defense problem—the question of "how much is enough?" In this sort of problem, the questions involved, for example, are not only, "Do we need a capability to destroy 97 percent of the 100 targets?" but also, "Is the capability to raise expected target destruction from 94 to 97 percent worth the cost of 100 extra missiles?" In other words, examination must be made not only of total costs and total products but also marginal costs and marginal benefits, or marginal contributions should be analyzed.[2]

All these problems involve the choosing of doctrines, weapons and equipment so as to get the greatest benefit out of any given level of

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[1] Ibid., pp. 46-50.

[2] Ibid., pp. 50-51.

available resources or to achieve a given level of defense at the least cost. However, it must be stressed that if the objectives, or the costs, or the measurements of military effectiveness are wrong, the answers also are wrong. A good example is the case of the SKYBOLT air-to-ground missile.[1]

Organizations for Systems Analysis

In the Defense Department, the Office of the Deputy Assistant Secretary of Defense (Systems Analysis) has the responsibility of raising the quality of analysis throughout the Department, to see that studies requested by the Secretary are responsive to his needs, to review studies for the Secretary and, where necessary, to do or re-do studies. On the other hand, the Joint Chiefs of Staff and the service departments have need for systems analysis and have established a form of organization to deal with this problem. For example, the Navy Office of Program Appraisal is charged with the systems analysis studies involving the Navy and the Marine Corps.

In addition to these "in house" capabilities, the Defense Department also supports a number of outside groups such as the Air Force's RAND Corporation, the Army's Research and Analysis Corporation, the Navy's Center for Naval Analyses, and the Defense Department's Institute for Defense Analysis. These outside supporting groups provide detached views and are able to approach a problem with relatively unbiased and objective attitudes. It should be pointed out also that these arrangements provide the broadest exchange of information and techniques as well as checks and balances among the defense components.[2]

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[1] Ibid., pp. 52, 55.

[2] Ibid., pp. 55-56.

Major Considerations in Cost-Effectiveness Analysis[1]

At the current stage of development of analytical methods it is not possible to define a definite set of rules on how to conduct an appropriate analysis, but some important guidelines, principles, and illustrations are enumerated briefly in the following paragraphs:

(1) Proper structuring of the problem is all-important. The analysis must be addressed to the right questions.

(2) In making comparisons, an appropriate analytical framework must be used. For example, for a specified level of utility to be attained in the accomplishment of a given objective, the alternatives may be compared on the basis of their estimated economic response impact; or, for a given budget level, the alternatives may be compared on the basis of their estimated utility. The former is the Fixed Utility Approach and the latter is the Fixed Budget Approach.

(3) It is usually necessary to construct a model, either formal or informal, to be used in the analytical process. Here the main purpose is to develop a set of relationships among objectives, the relevant alternatives available for attaining the objectives, the estimated cost of the alternatives, and the estimated utility for each of the alternatives.

(4) Uncertainty must be faced explicitly in the analysis. Sensitivity Analysis, Contingency Analysis, and a Fortiori Analysis are three possible techniques that may be used in dealing with the problem of uncertainty.

In sensitivity analysis several values (high, medium, and low) for key parameters which are uncertain are used instead of "expected values," and then the results are analyzed.

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[1]This section is largely based on G. H. Fisher, "The Role of Cost-Utility Analysis in Problem Budgeting," Program Budgeting, ed. David Novick, Part I, chap. 2.

Contingency analysis investigates how the ranking of the alternatives under consideration holds up when a relevant change in criterion for evaluating the alternatives is postulated, or a major change in the general environment is assumed.

Fortiori analysis involves an analysis of X versus Y where intuitive judgment strongly favors X, and the analyst may choose deliberately to resolve the major uncertainties in favor of X and see how Y compares under these adverse conditions. If Y still turns out to be better than X, the analyst has a very strong case in favor of Y.[1]

(5) Although it complicates the analysis because of an increase in the number of variables, very often time-phasing of the impacts of the various alternatives is a requirement. If the decision makers are not indifferent with respect to time preferences, the estimates of time-phased impacts must be "equalized" over time through the use of "discounting" procedures.

(6) Since the model is only a representation of reality, it is desirable to do some validity checking of the analytical procedure, e.g., can the model describe known facts and situations reasonably well?

(7) While cost-utility analysis stresses the use of quantitative methods, the analyst should not hesitate to supplement his quantitative work with appropriate qualitative analysis.

Appraisal - Problems and Limitations of the System

Thus it is clear that the Secretary of Defense and his principal advisors, both civilian and military, have been provided a highly effective management tool through which they are capable of making sound decisions on

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[1] Ibid., pp. 44-45.

programs and of measuring performances of approved programs thereby exercising control. In addition, they are able to modify, add to or delete the programs as needs arise through the program change control system. Moreover, budgets are in balance with programs, programs with force requirements, force requirements with military missions, and military missions with national security objectives. Particularly important is the fact that decisions are realistic and feasible. In effect, the total budget dollars required by a plan for the future do not exceed the Secretary's responsible opinion of what is necessary and feasible.[1]

For the first time in the history of defense of the United States, the Secretary of Defense is able to carry out his vast responsibilities by exercising full "direction, authority, and control over the Department of Defense," as envisioned by the National Security Act of 1947 through the planning, programming, and budgeting system. By careful separation of the budget process from programming this has been done without prior congressional approval, a stringent roadblock for budgetary reforms in the past.

Defense Secretary McNamara has described the functions of the system in an expansion of his management philosophy:

> It is through this system that we look at the defense effort as a whole. Major program priorities can be meaningfully determined only in terms of the total program, and a proper balancing of all the elements of the defense effort can ably be achieved at the Department of Defense level. . . .
>
> While I believe that unified planning, programming, and decision-making are indispensable to the effective management of the defense effort, I am equally convinced that the actual

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[1]Hitch, Decision-making for Defense, p. 3).

operation of the program should be managed, to the maximum extent possible, on a decentralized basis. . . .

Thus, the organization and management of the Defense Department must be based on the principles of centralized planning and decentralized operation.[1]

The program budgeting system is not a panacea. It is not something that can be easily designed, readily installed, or promptly effective in operation. It has certain limitations and problems some of which may be overcome or minimized through careful examination and implementation of the system; others may not be so easily surmounted. Some of the problem areas are:

(1) Program structure cannot always be defined in a clear-cut manner. The current program structure neatly classifies and accommodates the activities of the Air Force, that is, strategic, defense, and tactical functions as well as transportation and other aspects. However, the bulk of the program and program elements of the Army and the Navy, including the Marine Corps, are grouped under Program III, the General Purpose Forces which have been most difficult to assess in terms of operational and cost-effectiveness.[2]

(2) As pointed out in chapter IV, the problems of cost allocations and cost estimates of a program element are not simple and are in a less-satisfactory stage of development.[3]

(3) The system imposes heavy information and paper work requirements. Also the burden of an additional workload stems from the fact that

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[1]House Committee on Armed Services, Hearings on Military Posture, 88th Cong., 1st Sess. (Washington: U. S. Government Printing Office, 1963), p. 373.

[2]Hugh McCullough, "New Concepts in Defense Planning, Programming and Budgeting," The Federal Accountant, Vol. 12, No. 1, September, 1962, 74.

[3]Supra, pp. 50-51.

at present the Congress prefers the traditional budget structure, which is not expected to be changed in the near future.

(4) Since the budget is tied to the calendar, the entire planning, programming and budgeting system operates on an annual cycle, although the review process cannot be held to a strict schedule. As a result, the program and budget reviews have tended to overlap in an undesirable way making it difficult to reflect properly some of the force structure decisions in the support program in time to make budget decisions.[1]

(5) It has been pointed out by both proponents and opponents of the cost-effectiveness analysis that limitations and risks of the system should be fully acknowledged. Not all factors can be quantified and models may not represent all the intangibles which often play determining roles in decision-making.

(6) There are other problems that should not be overlooked, such as overcentralization of the top management hierarchy, a time-lag in making cost-effectiveness studies, difficulties involved in coordination when program or budget decisions are changed, and the human tendency to resist change.[2]

In recent months the Defense Department has undertaken a management survey on the planning-programming process in order to improve the present system. McKinsey & Company, Inc., the participant in the survey, proposed a separate decision-making process for "major force-oriented" issues on one hand, and "other decisions" on the other hand.[3] This is an attempt to

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[1]Hitch, Decision-making for Defense, pp. 63-64.

[2]For detailed discussion of the subject see ibid., pp. 61-73. Also for a general discussion see McKean and Anshen, Problems, Limitations, and Risks of the Program Budget.

[3]McKinsey & Co., Inc., Memorandum letter to the Assistant Secretary of Defense (Comptroller) on Changes in the Planning-Programming Process, dated January 5, 1966, p. 1.

facilitate the decision-making process in the most effective way and to streamline the procedures, thereby reducing workloads and costs. Its main concern is the mechanism of the program change control system.

"Force-oriented decisions" cannot be categorized by any standard and must be identified individually. Some of their distinguishing characteristics are: (1) They have a significant effect on current or future balance of forces among program elements (Programs I - V), on strategy or tactics, and on political, economic and military considerations; and (2) they usually grow out of new assessments of threats or major technological breakthroughs. "Other decisions" concern largely Programs VI and VII, and decisions are made primarily through the Program Change Proposals.

It is recommended that the "major force-oriented" issues be grouped in "analytical families" which would be broader in scope than individual Program Change Proposal. This will facilitate the integrated decision-making and rational trade-offs among alternatives. All other program changes, except Research and Development, Military Construction or Capital Procurements Items, should be handled through the joint program-budget review during the budgetary process.[1]

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[1]Ibid., et passim.

CHAPTER VI

MANAGERIAL IMPLICATIONS OF THE PROGRAM BUDGETING SYSTEM FOR THE KOREAN MILITARY ESTABLISHMENT

The effectiveness and successful implementation of the program budgeting system in the United States defense establishment have encouraged other nations such as Great Britain, Canada, and West Germany to introduce similar systems for their defense management.[1] In Korea the military establishment has adopted the basic military doctrines of the United States as well as many American administrative procedures as a result of its work with the Military Assistance and Advisory Group [MAAG] and the fact that large numbers of its military personnel have been trained in the United States. However, thus far no efforts have been made to study and implement the program budgeting concept in the Korean military establishment. This chapter will show how some of the aspects of the program budgeting system could be applied to the Korean defense budget.

General Background

The national budget system of Korea was adopted when the Constitution of the new republic was written in 1948. Subsequent legislation, the Finance Law, provided the statutory basis for budgetary accounting procedures. In Korea today, where the form of the government is patterned after the

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[1] Hitch, Decision-making for Defense, p. 77.

presidential system in general, the Chairman of the Economic Planning Board [EPB] who serves concurrently as the Deputy Premier has the prime responsibility over budget formulation and review and execution in the form of apportionment control. The budget includes both expenditures and revenues for a budget year [BY]--the fiscal year coinciding with the calendar year. The budget is submitted annually to the National Assembly by the President for review and approval.[1]

The Budget and Accounting Law, which superseded the Finance Law and implemented the performance budget concept in 1961, requires the Chairman of the Economic Planning Board to issue a budget policy and guidance letter by the end of March in the current year as approved by the State Council and the President.[2] Upon receipt of the budget policy and guidance letter, each ministry and government agency prepares its budget estimates on a program basis and submits them to the Bureau of the Budget in the Economic Planning Board by the end of May.[3]

A preliminary study and a review of the budget estimates are conducted by the staffs in the Bureau of the Budget through formal and informal hearings with officials from ministries and agencies concerned. Tentative decisions are made by the Chairman of the Economic Planning Board who presents the budget to the State Council, the legal corporate body composed of all Cabinet Members and headed by the President, where compromises and readjustments are attempted.[4] Final decisions are made by the President; annually,

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[1] Daehanminkuk Hunpob [The Constitution of the Republic of Korea], Art. 90, and Yesanhwehunpob [The Budget and Accounting Law], Art. 17.

[2] Yesanhwehunpob, Art. 25.

[3] Ibid., Art. 20.

[4] Daehanminkuk Hunpob, Arts. 83, 85-86.

in early September, he submits his budget request to the National Assembly, together with his Budget Message for review and approval.

The National Assembly of Korea is set up on a unicameral basis, whereas standing committees in the National Assembly are organized along the functional lines of government activities. These committees review the President's budget request and forward it to the Special Committee on Budget and Accounts for overall review. The resolutions of the Special Committee are then forwarded to the general session for debate and action. Budget approval is by vote in the form of chang, kwan, and hang, units of budget divisions, which are used for budgetary control purposes. Without approval of the National Assembly, no transfer of funds can be made among the budget titles described above, collectively called "legislative titles."[1]

Thirty days prior to the start of the new budget year the National Assembly approves or modifies the proposed budget and returns it to the President for proclamation.[2] The National Assembly has no authority to increase the proposed budget or establish new budget titles without consent of the executive branch of the government.[3] Usually the budget review is preceded by an inspection tour of government operations by legislators on the standing committee basis.

The approved budget cannot be implemented until it is apportioned by the Economic Planning Board to the ministries and agencies on a quarterly basis. When a request from a ministry or agency for apportionment of its budget in line with its operating program is made, the Bureau of the Budget takes into consideration the revenue aspects as provided by the Ministry of

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[1] Yesanhwekpob, Art. 34.

[2] Daehanminkuk Hopob, Art. 50.

[3] Ibid., Art. 53.

Finance and makes necessary adjustments in order to control the rate of government expenditures according to fund availability and the general economic condition of the nation. Before the actual apportionment is made, the Chairman of the Economic Planning Board has to secure the President's approval through the State Council.[1] Apportionments are allotted by the ministers and agency heads to the bureaus, divisions, or field activities, after which obligations may be incurred.

Auditing is conducted by the Audit Board—composed of more than five but fewer than eleven civilian auditors—which is a semi-independent, quasi-judicial organization.[2] Two types of audit are performed—the traditional or legal post-audit, and an examination of efficiency and economy in government operations. An annual audit report is submitted to the President and to the National Assembly. Each ministry and agency has some form of internal audit system for internal control purposes; so far no standard procedures have been established throughout the government.

Planning, Programming and Budgeting in the Military Establishment

The Ministry of National Defense [MND], the only civilian representative who sits on the State Council, is entrusted with full authority over the military agencies—the Army, the Navy including the Marine Corps, and the Air Force, and the defense agencies—the Joint Chiefs of Staff, National Defense College including the Joint Staff College, Joint Construction Agency, and others.[3]

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[1] Yesanhwekepob, Art. 33, sec. 2.

[2] Daehanminkuk Hunpob, Arts. 92-94. (It belongs to the President but performs its function independently.)

[3] Kukoonjochikpub [the Armed Forces Organization Law], Art. 9.

In the Korean military establishment there are no civilian heads of military agencies equivalent to the service secretaries in the United States military establishment. The President, required by law to be a civilian, exercises control over all military matters through the Minister of National Defense.[1] However, actual operational command for the defense of Korea is in the hands of the Commander-in-Chief, United Nations Command, as a result of the delegation of authority during the Korean War.[2]

The Army is the largest Korean military agency and has approximately 520,000 men, followed in size by the Navy including the Marine Corps with about 40,000 men, and the Air Force with about 24,000 men.[3] The largest slice of the defense budget goes to the Army. In the 1965 Budget Year, out of total defense expenditures of 28 billion hwan, 76.8 percent went to the Army, 9.8 percent to the Navy including the Marine Corps, 7.1 percent to the Air Force, and 6.3 percent for the Ministry of National Defense and various defense agencies.[4] In the defense budget, 36.1 percent was spent for Pay and Allowances, 37.8 percent for Subsistence in Kinds, 9.4 percent for Clothing, 15.4 percent for Troop Maintenance, and 1.3 percent for Force Improvement. Combining the first three percentages shows that more than 83 percent of defense spending is used in maintaining personnel, both military and civilian, and a negligible amount goes for force improvement purposes.

Numerous attempts, largely by the Army sector, have been made to improve the budgetary process for efficient and economic utilization of

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[1] Daehanminkuk Hongpob, Art. 72.

[2] July 14, 1950 by President Syngman Rhee.

[3] The source is based on the Quarterly Report prepared by the Joint Chiefs of Staff, Republic of Korea, 1965.

[4] Hwang, In-Sung, Brigadier, ROK Army, Mehwek kwa Yesan [Planning and Budgeting], the Ministry of National Defense Pamphlet (Seoul, Korea, MND, 1965), p. 87.

defense spending. The performance budget concept, implemented in the Army in 1959, took the form of a rearrangement of the budget structure to meet the primary program categories of the Army.[1] These efforts resulted in the successive reduction of budget titles used by the military services. The number of budget titles was reduced from 23 to 18 in 1961, to 13 in 1962, to 11 in 1963, and to 6 in 1965. Current titles are:

(1) Personnel Maintenance and Management

(2) Troop Maintenance and Management

(3) Procurement of Equipment and Materiel

(4) Construction and Real Property

(5) Research, Development, Test, and Evaluation

(6) Reserve Personnel.[2]

The budget cycle in the Korean military establishment starts with the development and review of the Joint Strategic Objectives Plan [JSOP] prepared annually by the Joint Chiefs of Staff based on the Mid-Range Estimates [MRE] of the services. The purpose of the Joint Strategic Objectives Plan is to provide the basic guidance for the programs and budgets to be used in the Ministry of National Defense, projected for five years. It develops a strategic concept, determines military requirements, and studies the employment and deployment of military forces during the mid-range period. The important aspect of this plan is that it provides the Defense Ministry with an estimate of the required force structure which will be used in

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[1]ROK Army Hqs., Sin Yukoon Yesancheto [the New Army Budgetary System], Study Report, Vol. 1 (Seoul, Korea: The Army Printing Plant, 1964), pp. 4-8.

[2]ROK Army Hqs., Yukoon Songkwachuyi Yesancheto [the Army Performance Budget System], Army Pamphlet 37-2 (Seoul, Korea: The Army Printing Plant, 1965), pp. 10-11.

developing guidelines for the next budget year. The more realistic the plan, the better the outcome of the defense budget.

As noted earlier, the Joint Strategic Objectives Plan provides the basis for the Five Year Defense Program which becomes the foundation of the Program and Budget Guidelines as well as the Basic Defense Programs. Each service prepares budget estimates on the basis of its operating or basic program which has been developed from the Service Strategic Objectives Plan, the Control Program (in the Army), and the Service Program and Budget Guidance. These are all geared to the Joint Strategic Objectives Plan, the Five Year Defense Program, and the Program and Budget Guidance of the Ministry of National Defense [MND], respectively. Program categories are arranged in terms of resource inputs such as Troop Programs (Personnel, Command Management, Intelligence and Training), Logistics Program, Military Construction Program, Research and Development Program, and Reserve Program.[1]

Approximately thirteen months prior to the Budget Year each service chief issues the Program and Budget Guidance to his respective field units based on the Ministry of National Defense guidance and its own long-range program, and, upon receipt of these initial projections, develops the Operating Budget Estimates. The budget estimates, reviewed and coordinated by the general staffs, the comptrollers and advisory committees at the headquarters level, are submitted to the Ministry of National Defense before May. When the President makes a final decision on budget requests and submits them to the National Assembly, each military service's Program and Budget Requests are modified and revised accordingly. When the National Assembly approves the budget requests, they become final.[2]

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[1]Hwang, In-Sung, p. 77.

[2]Sin Yukoon Yesancheto, pp. 38-40.

Within the Ministry of National Defense, most budget reviews are conducted by the functional bureau staffs and an ad hoc committee. The Joint Staffs in the Joint Chiefs of Staff review the service budgets for education, training, and intelligence. The Defense Comptroller, usually an Army general officer, has the primary responsibility for coordinating the budget review in the Defense Ministry. He then presents the results of his review to a conference of bureau directors and the Military Policy Council, composed of the Deputy Defense Minister, the Assistant Defense Ministers, the Chairman of the Joint Chiefs of Staff, and the Service Chiefs, presided over by the Defense Minister. Here the final decisions are reached. The defense budget is submitted to the Economic Planning Board for further deliberations and inclusion in the President's budget.

After due process and subsequent enactment of the budget by the National Assembly, the budget is apportioned, allotted and suballotted through established administrative channels; obligations are incurred and expenditures made by the operating units.

Program progress is reported regularly to the headquarters of the military services and to the Ministry of National Defense, and the analysis and evaluation of program performance are conducted at both levels on a quarterly basis. Usually the comptrollers of the services and the Defense Comptrollers are responsible for progress reporting, and they recommend necessary actions to correct or alleviate significant deviations in the performances to the respective line management. The quarterly reports of "Progress Review and Analysis" are published by the services and the Defense Ministry.

Analysis and Appraisal

Thus far the examination of the process of planning, programming and budgeting in the military establishment of Korea as it exists and is practiced today has been brief. The first analysis begins with the determination of military requirements and program review. A student in military management in 1961 revealed that there was a wide gap between the Joint Strategic Objectives Plan and fiscal reality.[1] There existed neither a basic national security policy nor any specific guidelines for military planning. Therefore, the Joint Staffs in the Joint Chiefs of Staff tended to develop military requirements in absolute terms with limited consideration for budgetary constraints. The situation somewhat resembled conditions in the United States defense planning prior to the program budgeting system. What, if any, changes made since are not known.

It is difficult for the Defense Minister to give responsible guidance as to the outlook of the defense budget when economic prospects for future years are uncertain, and the amounts and contents of the military assistance to be provided by the United States are not accurately determinable at the planning stages. The Defense Minister needs both sides of the picture in order to have a complete and integrated view of the estimates of future defense spendings. In fact, it has often been cited that the lack of information on United States assistance hampers realistic Korean military planning and programming. In view of the differences in the fiscal years between the United States and Korea, and frequent delays by Congress in acting on foreign aid bills, inevitable reluctance in making any prior commitments at the operating levels is understandable. Some advance

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[1]Chin, Chong-Su, Kun Chungkikehwek Suriphwachong e kwanhan Kochal [A Study of the Military Mid-Range Planning Procedures], unpublished Master's Thesis, the Seoul National University, 1961, pp. 60-63.

information regarding future prospects of military assistance, at least for planning purposes, should be provided to Korean defense officials.

Under present circumstances, planning and programming formulation of Korean military requirements cannot be determined realistically. Obviously such programs are incapable of providing solid bases for budget-making because they are expressed without full consideration of future financial consequences. While in theory there exists a transformation device which would bridge the gap between planning and budgeting, in reality the theory does not work. Therefore the results have often consisted of significant modifications and revisions of the programs from inception until final passage by the National Assembly, frequently after hurriedly having been formulated within the period of a few weeks.

Military planning is performed in terms of missions and military units of forces, whereas programming and budgeting are considered in terms of inputs such as personnel, operation and maintenance, procurement, construction, etc. So far no attempt has been made to relate the resource inputs to military outputs when major program or budget decisions are to be made, nor for alternative means to achieve the established goals and systematically examine them in terms of relative merit against the burdens involved. Without critical examination of alternatives, rational or sound decisions cannot be expected, since they would be based on intuition, and limited judgments and experience.

It has been customary in the Korean Government for the Economic Planning Board to establish a "budget ceiling" and impose it upon all governmental units in order to keep the total public expenditures within certain fiscal limits. The ceiling approach in itself is a powerful weapon and may be a sound practice when used in the proper perspective because

there is always a practical limit on government spending. However, as Maurice H. Stans, former Director of the Bureau of the Budget under President Eisenhower, has implied, there should be no "fixed frozen limit on spending on the budget."[1] Nevertheless, the budget ceiling in Korea is determined and rigidly adhered to without consideration of real program needs, and with little participation by the agencies affected.[2] This, in effect, has severely hampered efforts toward better programs and budget formulation by agency officials, since a new program obviously would not survive if it were not within the ceiling.

In reviewing the Korean budget it is not surprising to find that the reviewers tend to emphasize the budget ceiling, the amounts of increase over current year, formats, administrative procedures, etc., rather than program needs, program priorities, validity of the cost figures and other factors.[3] In recent years there have been several improvements in standardizing cost figures among the services and providing a degree of flexibility in budget formulation in program terms. Military agencies are encouraged to submit an addendum budget if the total amounts of their budget estimates exceed the established budget ceiling.[4]

In formulation and review of the Joint Strategic Objectives Plan, lack of communication, participation and eventual coordination among bureaus or divisions within the Defense Ministry and the Joint Chiefs of Staff to a

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[1]U. S., Senate Subcommittee, Hearings, p. 1117.

[2]ROK Army Logistics School, Won-hwa Yesan [Hwan Budget], Pamphlet, n.d., circa 1963, pp. 4-11.

[3]Chin, Chong-Su, pp. 71-72.

[4]The Ministry of National Defense, Kihwek mit Yesanjichin, BY 1966 [Program and Budget Guidance for BY 1966], March 15, 1965.

degree have contributed toward making the plan infeasible and unrealistic. The same situation prevails in the process of program and budget review.[1] It is evident that without harmony and concerted group efforts, it is difficult to accomplish common goals and objectives.

During the last few years, several moves have been made to streamline the Korean military organization. One is the establishment of several joint agencies under the direct control of the Defense Ministry such as the Joint Chiefs of Staff, the National Defense College, the Joint Construction Agency, the Joint Investigation Agency, and the Selective Service and Recruiting Office. In addition, numerous studies have been made on the possible integration of service academies, technical schools, hospitals, and other institutions. Also there has been an increasing tendency to centralize authority in the Defense Ministry and to enlarge civilian control over the military agencies on major defense problems such as force structure, budget and personnel.

In the preceding discussion it was noted that a degree of similarity exists between the Korean military establishment today and the United States defense establishment prior to the implementation of the program budgeting system. In Korea there is a considerable gap between military planning and budgeting, military resource inputs are not related to the outputs, the performance budget concept is interpreted in terms of simplifying and streamlining the budget titles, the ceiling approach is prevalent, budgetary requirements are projected for one year in the future, coordination and communication are lacking within the defense establishment, and integration of common functions and concentration of authority in the Defense Ministry are just beginning to emerge.

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[1]Chin, Chong-Su, pp. 63, 73.

It can be argued that the military situation in Korea today is vastly different from that in the United States, and that no valid comparison can be made. Of course Korea is not capable of waging all-out nuclear war, nor does she possess the necessary resources and technology to develop costly weapons. Moreover, the defense problem of Korea ought to be considered in the light of a broader concept of the "collective security" of the free world. Nevertheless, the intrinsic process of decision-making for defense management differs in degree, not in kinds; therefore a program budgeting approach in the Korean military establishment would be of great value. The goal of program budgeting is to search for the most economically feasible and efficient ways of achieving objectives through systematic analysis of alternatives in terms of the costs and benefits. Presuming these premises to be valid, there is no reason why Korea should not benefit by adopting this new system with necessary modifications.

CHAPTER VII

SUMMARY AND CONCLUSIONS

Since World War II, the defense budget has developed into a strong driving force leading toward "real unification" in the American defense establishment, especially since the enactment of the National Security Act of 1947. In the United States today the defense budget is the principal management tool in the Defense Department. It is not only the instrument by which resources are allocated but also the means for controlling military programs, since strategy, programming, and budgeting are all aspects of the same basic decision-making process.

The first step toward military unification in the United States took place when the National Security Act of 1947 was passed. Subsequent amendments to the Act show the trend toward more centralized authority in the Office of the Secretary of Defense and stronger civilian control over the military services. At the same time, heavier pressures have been placed on the need for economy and efficiency in defense spending, largely because of the tremendous amounts of defense expenditures and their impact on the national economy.

Until 1961, efforts to improve financial management in the Defense Department were concentrated on simplifying and streamlining the appropriation structures in order to implement the performance budget concept. Prior to this time the defense budget had been a critical theme of and often the basis for sharp controversy among the services and in the Defense Department, but there existed no means of enabling the Secretary of Defense to solve

this problem rationally. The defense budget took the form of the "ceiling approach," and the budget seldom was related to military tasks and missions or national security objectives in a meaningful manner. Military planning and financial management were regarded as independent activities, the former being in the hands of the military planners and projected well into the future, and the latter being handled by civilian counterparts on an annual basis. To bridge this gap the new programming system was established by Secretary of Defense, Robert S. McNamara, and Charles J. Hitch.

In the new system all activities of the Defense Department are grouped under major programs which, in turn, consist of program elements organized according to missions and tasks regardless of traditional service jurisdiction. The Five Year Force Structure and Financial Plan is basically the summary of all approved programs in the Defense Department and includes all of the program data, together with the description of forces, their tasks and missions, procurement lists, facility lists, and other relevant information. These programs are continually being reviewed, modified and updated to meet changes in the environmental conditions through a Program Change Control System.

The annual budgeting procedure consists of converting a one-year slice of the approved five-year programs into an appropriate budget with supporting details organized in a more orderly and systematic manner. This eliminates the hurried program review which was previously crammed into a few weeks in the midst of the annual budget review.

In order to reveal full cost implications of a program, costs are classified into Research and Development, Investment, and Operating Costs.

Resources are broken down into Items of Equipment, Military Construction, Manpower, and Operations and Maintenance so as to permit explicit planning for the acquisition and financing of resource inputs. Use of the Cost Information and Progress Reporting Systems facilitates evaluation and control of program performance.

One of the outstanding features of the new program budgeting system is the cost-effectiveness study of available alternatives. This is not intended as a substitute for good judgment but hopefully as a device to sharpen judgment by analyzing the costs against the benefits or performances of alternatives involved. The new system thus provides a sound basis for decision-making, and serves to reorient the thinking of military planners toward more systematic and quantitative terms.

Problems and difficulties are involved of course in the new system, a few of which are: (1) difficulties in defining some programs and program elements; (2) difficulties in getting accurate cost data; (3) added paper work; (4) tendency to overlap program and budget reviews; (5) some limitations and time-lag in cost-effectiveness studies; and (6) overcentralization in the Office of the Secretary of Defense. In order to overcome some of these contingencies, the Department of Defense has recently undertaken a management survey. However, no changes have been announced.

Despite these restrictions the new system has proved to be an improvement over the old management tool and significantly more effective. It provides the Secretary of Defense and his immediate advisors with meaningful information by which they are able to make major decisions on future defense programs. With this management tool at his command, the Secretary of Defense is now capable of exercising his authority, direction and control

in an effective manner. Through the use of the planning, programming and budgeting system the long-sought "real unification" of the armed services has been accomplished without major reorganization of the defense establishment.

Use of the program budgeting system in the Korean military establishment is difficult because of the unique military situation of Korea today, the size and nature of the defense budgets, and the political, economic and social factors involved. Nevertheless the new way of looking at the Korean defense budget should be helpful and beneficial in achieving better allocation of defense resources as well as enhancing economy and efficiency.

Perhaps the most significant contributions are the introduction of the cost-effectiveness approach and the economic study of defense problems as a basis for sound decision-making to orient the traditional way of thinking into critical search and analysis of alternatives in terms of costs and benefits.

Another benefit would be the attempt to relate the resource inputs to military outputs in terms of missions, tasks and national security objectives, in order to obtain an integrated view of defense spending.

Similar efforts should be directed toward integrating long-range planning to programs which in turn would lead to treating the budget in a more systematic and meaningful manner. Before a decision is made there should always be a considerable projection of a major program into the future in financial terms.

The Republic of Korea is required to maintain large military forces for national security in order to deter or be ready to meet the threat of

Communism; consequently, large portions of its national resources are allocated for defense purposes. Since the country is small and its defense demands are large, it is imperative that there be effective, efficient, and justifiable utilization of public funds in all areas of the Korean military establishment. Top management of the defense organization should continually probe the best ways to allocate resources and control performances in order to accomplish national security objectives in the most competent and expeditious manner. In this respect, the program budgeting system deserves further study in order to implement its applicability to the Korean military situation.

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